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Society Reports.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated Meeting, November 6, 1884.

The President, R. A. Cleeman, M.D., in the Chair.

REMOVAL OF UTERINE APPENDAGES FOR MENSTRUAL EPILEPSY.— RECOVERY.

Dr. E. E. Montgomery exhibited the specimens and read the history of the case. Sarah H., æt. 17 years, was admitted to the Philadelphia Hospital in April, 1884. She suffered from an attack of inflammatory rheumatism in childhood, and began to have epileptic seizures in her thirteenth year. They were slight at first, but have recurred every month, increasing in number and violence, so that at present she is unconscious from ten days to two weeks out of every month. There has only once been a trace of menstrual discharge, and that for a single day only. There is no history of any chronic disease in the family, her brothers and sisters are healthy.

The patient was pale, flabby, anæmic, poorly developed, and exceedingly nervous. The external genitals are but slightly developed, the uterus small and no special tenderness over the pelvis. Iron, tonics, and generous diet were given, the bromides were not well borne. Owing to her youth and the fact that she had not yet menstruated it was deemed best to undertake to establish the menstrual function and exhaust the antispasmodics before resorting to operative interference. The failure of all remedial measures was complete, and on September 13th the operation was performed; both ovaries and tubes were removed. No antiseptic was used about the wound. All the water used had been well boiled. Absorbent cotton was placed over the wound, which had been closed with silk sutures. The operation occupied thirty-five minutes.

The recovery was uninterrupted until the night of the 26th of September, when she had four epileptic seizures. There were recurrences of slighter attacks during the next three nights, but they were shorter, and during the intervals she was perfectly conscious. During the first four days of October, spells of staring, with momentary unconsciousness occurred, becoming less frequent and lighter. A well-marked convulsion on October 14th was followed by from one to four convulsions daily until the 29th, but they have not been so severe as before the operation.

Removal of Parovarian Cyst, Recovery.

Dr. E. E. Montgomery presented the specimens and related the history as follows:

Mrs. A., æt. 30 years, native of England, married, never pregnant, has suffered from an enlargement of the abdomen for seven years, as it was first noticed a few months after her marriage, she supposed herself pregnant. Her menses have never been interrupted, now occur overy three weeks, are very slight, and have never been excessive. She suffers severe pain the week before menstruation in the lower part of the abdomen and through the hips. She suffers at other times from pain in the feet and legs, and from a sensation of weight. The tumor has been tapped some six times. The fluid was always of a pale straw color. The largest quantity removed at one time was 40 lbs. Previous to its removal her weight was 102 pounds. The last tapping was on June 27, 1884. She has had four attacks of peritonitis.

When first seen last July, two weeks after the last tapping, the abdomen was swollen and tender to pressure. Fluctuation was distinct. Since that time the abdomen has increased considerably in size, presenting a prominent tumor distending the whole abdomen, nearly symmetrical, but projecting slightly to the right side; circumference at umbilicus 32 inches; distance from symphysis to umbilicus, 7 inches; to ensiform, 13 inches; fluctuation distinct over the whole tumor; coughing projects the whole mass forward and downward. Her general condition is good, she is quite active.

Diagnosis:—A parovarian cyst.

Plan of operation:—Exploratory incision; remove the tumor if possible, but if the adhesions are too great to permit that, to open the sac, stitch it to the integument, introduce a drainage tube, and thus secure obliteration of the sac.

Operation:—October 9th. Abdominal wound 4 inches, adhesions universal, but generally broken up without difficulty, no ligatures were needed. The intestines were not seen, being concealed by old inflammatory deposits. The right ovary was enlarged, and was also removed. The wound was closed by seven sutures and a glass drainage tube introduced. Salicylated cotton in a thick layer was placed over the wound. Suppositories of morphia were used to control the pain, which continued to a greater or less extent for two weeks, arising partly from inflammatory conditions and partly from collections of gas in the intestines. The abdominal wound discharged freely, three ounces the first day. The drainage tube was removed on the 13th, four days after the operation, but the discharge of bloody serum, pus and flaky lymph continued for full two weeks later, when the wound closed entirely and the patient was discharged.

Dr. B. F. Baer presented specimens and read the following report of

PLACENTAL POLYPUS WHICH SIMULATED MALIGNANT DISEASE OF THE UTERUS.

The patient was 35 years of age, married, and had had two children at full term, the last twelve years ago. She has had several abortions since, but otherwise she has enjoyed good health. Her mother died at the age of thirty-eight of cancer of the uterus. In the early months of this year our patient first noticed that her catameniæ were becoming too frequent, and were attended with expulsive pains and a fœtid watery discharge in the intervals. The blood loss increased, and she soon began to show signs of failing health by pallor and loss of flesh. She would not permit a physical examination until the latter part of July, when she had a severe flooding, with great pain.

Examination now revealed to Dr. R. Armstrong, of Lockhaven, Pa., whose patient she was, a healthy cervix and a normal os, but the body of the uterus was increased to twice its natural dimensions, it seemed to be symmetrical and rather softer than usual. The hemorrhage was controlled by ergot and rest. Although the grumous fetid discharge and the uterine tenesmus continued, she did not have another severe attack of metrorrhagia, probably because of her exsanguine condition and the fact that she was suffering from septic absorption. Her temperature rising as high as 104° in the afternoon, she had distinct rigors. Her abdomen was tympanitic and very tender to the touch. The physical condition of the uterus led the doctor to introduce two tents into the cervical canal on September 23d. They were allowed to remain 24 hours, although their presence increased the violence of the symptoms. When the tents were removed, a rather stiff, friable mass could be felt presenting at the internal os. This led to a fear that the disease might prove to be malignant. A severe colliquative diarrhœa now set in, and the patient's strength became so much reduced that nothing could be done except to administer remedies to check the diarrhœa and prevent collapse.

On the morning of the 25th, through the kindness of Dr. Armstrong, I saw the patient. Temperature was 103, pulse rapid and weak, stomach irritable, rejecting everything taken, bowels still diarrhœal. Her face presented the ashy hue of malignant disease. The outlook was not favorable for an operation, which would necessitate the dilatation of the cervix sufficiently to remove the diseased tissue which evidently occupied the uterine cavity, but it was the only course to pursue. Ether was administered. The uterus was found retroverted and adherent to the floor of Douglas' cul-de-sac. The cervix was rigid and but slightly patulous. In view of the existing peritonitis it was considered best that I should endeavor to remove the contents of the uterus without a further attempt at dilatation, fearing rupture of the adhesions and increased inflammatory action. I passed the wire loop of the ecraseur through the os, and by careful manipulation luckily succeeded in guiding it over the tumor and

up to its attachment. Drawing upon the wire, it closed upon the pedicle and severed it. The tumor was seized with a volsella forceps and delivered. The index finger could now be passed into the cavity of the uterus. The pedicle was situated on the posterior wall, near the fundus. The tissues at that point were soft and friable, but the remainder of the uterine cavity appeared to be free from disease. The stump was cauterized with nitric acid, and a two-grain opium suppository placed in the rectum. Convalescence was rapid and satisfactory.

On section and close examination the specimen very much resembles placental tissue, and the microscope shows typical placental vili in its structure. It is the placental polypus described by C. Braun in 1851, and somewhat resembles the fibrinous polypus of Kiwich, who thought these polypi might arise from long persistent hemorrhage, a kind of apoplexy of the womb, a large coagulum forming, the upper part consisting mostly of fibrine, and adhering by a stalk to the uterine wall, while the lower consists of red, soft coagulum, having a coat of firm fibrin. Scanzoni does not admit this view. He contends that these are cases of abortion, and therefore fall under the class of placental polypi (Barnes). My own experience agrees with that of Scanzoni. These polypi cause profuse metrorrhagia, and sometimes, as in this case, blood poisoning.

This case furnishes another strong argument in favor of the entire removal of the decidua or placenta after abortion. Who can tell how many lives are lost, or in how many cases the health is undermined by a neglect of this procedure? Death would have inevitably occurred in this case if the uterus had not been emptied. The patient may suffer for months or years as a result of neglect. In this case the fault was in the patient, for she had been properly advised by her physician. It is true that many cases escape without serious injury, but that does not prove that the principle and practice of immediate removal is not always the safe one, for here is a case where a neglected abortion passed off safely, but almost destroyed the patient's life a long time afterward.

Malignant disease was properly suspected from the rapid development of such grave symptoms, from the general cachectic appearance of the patient, and from the sensation conveyed to the finger when touching the growth in situ. But when it was found that it had a limited attachment, and that the uterine cavity was healthy at all other parts, this hypothesis was weakened, and when more careful examination of the specimen and investigation with the microscope showed it to contain placental villi, its beneign character was assured.

Dr. Montgomery remarked that in cases in which partial dilatation of the uterus had been accomplished before the patient presented, the best instrument to continue the dilatation is the mechanical urethral ditator of Dr. A. H. Smith.

Hair-pin in the Uterus.

Dr. B. F. Baer exhibited a hair-pin removed from the uterine cavity of a woman sent to him by Dr. Pancoast, of Camden, N. J. The woman, believing herself to be pregnant, had tried to produce an abortion by inserting the pin, by grasping the points and inserting the blunt end. The patient had obtained a view of the parts in a mirror placed upon the floor. The presence of the pin was readily detected by the uterine sound. He at first thought of dilating with tents, but, the patient being greatly alarmed and very importunate, he used the steel dilator. One point of the pin became embedded in its descent in the tissues of the cervix; and required dissection to release it.

Dr. Wharton Sinkler exhibited a hairpin removed from the vagina of a patient who had tried to introduce it into the uterus to produce an abortion. She had failed in her purpose, and had also failed to remove it from the vagina. The doctor found the points of the pin widely separated, presenting downward, and hooked into the walls of the vagina. By bringing the points together it was removed without difficulty. It had been in the vagina for some time.

Dr. Montgomery stated that while a student he had seen a hairpin removed from a vagina. It was thickly encrusted with a calcareous deposit.

OBSTETRICAL SOCIETY OF LONDON.

Meeting of Wednesday, October 8, 1884.

Henry Gervis, M.D., President, in the Chair.

Post Partum Avulsion of the Uterus, with a Case followed by Recovery.

Mr. J. Hopkins Walters read a paper on this subject. In April 1882, he was called by Mr. Cockran, of Caversham, to a patient, aged 22, in her third confinement. She had been attended by a midwife, who, after the birth of the child, finding the placenta did not come away, pulled at the cord, which broke at its attachment. She then introduced her hand, and tore away the whole of the uterus, with the right ovary and Fallopian tube, portions of the round ligaments, the left Fallopian tube, and the ligament of the left ovary attached to it. Mr. Walters saw the patient twenty-one hours after the accident, and found her under the influence of opium, and somewhat recovered from severe collapse. A large quantity of omentum protruded from the vulva, and in the upper part of the vagina was an enormous rent. He ligatured and cut away the omentum, which was cold and badly bruised at the level of the vulva; the parts were washed with solution of permanganate of potash, and a pad of salicylated wool was applied. The opiate was continued, catheterisation ordered every eight hours, and the diet was limited to milk and beef tea. The patient did well until the fifth day, when she was seized with shiver-

ing; her temperature fell to 97.4°, and the pulse rose to 170. Mr. Walters irrigated the vagina with solution of permanganate of potash, and, finding that the vaginal fundus had well closed round the omental stump, afterwards used a solution of carbolic acid. Quinine, in large and frequent doses, was combined with the opiates, and the vagina was syringed every eight hours. On the twenty-eighth day, the patient was able to drive five miles to the Royal Berkshire Hospital, where she remained under Mr. Walters' care until the beginning of July, when the omental stump had frittered away, and the vaginal wound was perfectly cicatrised. At the date of this report, two and a half years after the mutilation, the patient was in perfect health, and attending as usual to her ordinary occupations.

After a diligent search, Mr. Walters had found reports of thirty-six cases of accidental removal of the puerperal uterus, of which fourteen recovered. Of all these, only three were, without doubt, unattended by previous inversion of the uterus. Having regard to the medico-legal aspect of these cases, Mr. Walters drew an important distinction between the accidental removal of the previously inverted uterus, and of the uterus that had not undergone inversion, on account of the possibility of separation of the uterus through spontaneous rupture. According to present experience, inversion of the uterus was not found to co-exist with rupture either of that organ or of the vagina; and where it was shown that the uterus was inverted before being torn away, it became tolerably easy to estimate the degree of criminal responsibility attaching to the attendant. On the other hand, where it could be proved that the uterus was never inverted, it was impossible to assert that the separation of the uterus was wholly due to violence, and not contributed to by a spontaneous rupture. Mr. Walters quoted cases and authorities to prove the occasional insidious occurrence of uterine rupture, the suspension of symptoms, and the completion of child-birth in spite of it, in some cases independently of manual interference, and without any disproportion between the maternal passages and the child; and concluded that, in giving evidence in such cases, these facts should be most carefully remembered.

A Case of Rupture of the Uterus.

Dr. P. Horrocks described this case: M. B., aged 34, was in her ninth pregnancy. In the eighth, twins were born fifteen months ago. In her ninth pregnancy, labor came on at full term, and nothing abnormal was noticed when she was first examined. The os uteri was dilated, and the membranes bulged through it. The presentation was vertex. Two or three severe pains came on, following one another very quickly, and the vertex appeared at the vulva covered by the unruptured membranes. These were immediately ruptured, and the child (alive) was driven entirely outside the vulva by the powerful parturient action, which at the same time caused a rupture of the uterus, running nearly longi-

tudinally, but inclining obliquely downwards to the left, and involving part of the body, the whole of the cervix, and a portion of the upper part of the vagina. There was not any external hemorrhage, and the patient seemed all right for about ten minutes, when she became faint, and collapsed, vomiting some dark brownish fluid. The placenta was expelled by the uterus after injecting hot water into the vagina. The author arrived soon after this, and found the rent already described. The patient died before anything could be done. There were only a few clots in the pelvis, death having resulted from shock.

The President remarked on the value of Mr. Walters' paper. He did not quite gather in what way the projecting omentum had disappeared, and he would also ask whether examination had detected any due softening of the uterine tissues.

Dr. Aveling asked if any penal action had been taken against the midwife. He thought the case another strong proof of the necessity of passing a Bill to improve the class of midwives.

Dr. Braxton Hicks thought that, in Mr. Walters' case, there was already a rent of the junction of the uterus and vagina, and that the midwife had passed her hand through the rent in mistake for the flabby os uteri, had pulled down the omentum in mistake for the placenta (an error he had seen before), and then the uterus. Rupture of the uterus and vagina was produced by the essential contractions of the uterus. When an obstacle occurred to the head of the fœtus after its escape from the os, the uterine force was expended on the uterus and upper part of the vagina. When a laceration had begun, but little force was needed to extend it; and, when the fœtus was placed nearly symmetrically, the vagina might be torn all round. The broad ligaments were not capable of resisting much force, nor were the round ligaments. A very slight force would free the uterus after the severance of the vagina. He did not think that, in simple removal of the placenta from a sound uterus and vagina, it would be possible to tear the uterus away. After the uterus had been torn away from the vagina and most of its attachments, bearing-down might conceivably complete its detachment and expulsion.

Dr. Champneys said that the uninverted uterus might conceivably be torn away by inserting one or more fingers through the cervix, retroverting the fundus, hooking the fingers backwards and pulling.

Dr. Barnes confirmed the view taken by Dr. Hicks, that the uterus had the power, by virtue of its *vis insita*, of contracting and pulling on the vagina and broad ligaments, even apart from any central nervous-supply, for a short time at least. Expression of the placenta (practiced by the midwife in Mr. Walters' case) required caution, and might produce inversion. The proper way was to use both hands, and press the anterior wall against the posterior.

Dr. Herman said that in any future case of the kind in which evidence

on the subject might be required in a law-court, all available facts would be found in Mr. Walters' paper, which had shown that, in certain conditions, avulsion of the uterus was effected with great ease, and had been frequently effected by qualified medical men. Remembering the rarity of these cases, and the sudden emergency, a medical man should not be hastily condemned as a criminal, and still less a midwife.

The President said that, while avoiding hasty condemnation in any individual case, in the absence of a knowledge of all the facts, he could not but regard the avulsion of a whole uterus, inverted or not, as a very grave and responsible proceeding.

Dr. Griffith referred to a case in which a fibroid had been mistaken for the placenta; *post partum* hemorrhage had induced the practitioner to use some force, which might have inverted the uterus.

Dr. Brunton thought that the removal of an inverted uterus was the sign of incompetence, or even criminality, seeing that the absence of inversion could be easily proved by abdominal palpation of the parturient uterus.

Dr. Barnes replied that the uterus might be, by natural efforts, or aided by slight and not culpable manipulations, entirely detached. Casper mentioned a case in which the broad ligaments, even, were torn through by spontaneous force. When the uterus was lying loose, the hand, introduced to remove the placenta, might easily bring it away, and the practitioner might be blameless.

Mr. Walters, in reply, said that the omentum, after becoming highly vascular, slowly disintegrated by molecular death, and disappeared. He did not receive the uterus until many days had elapsed, and consequently no microscopic examination of its fibres was made. It looked, however, perfectly healthy, and of quite average thickness throughout its walls. No penal action was taken against the midwife; and he was thankful this was so, as although he still believed great violence was used, he should have given much stronger evidence against the woman than subsequent study of the histories of these cases would have justified. Comment had been made on the various ways in which, during operative procedures, the uterus might be detached from its connections, but one mode had not been mentioned. In the attempted introduction of the hand within the uterus, either for turning or to remove retained secundines, the organ might be forced up, and the tissues of the cervix or vagina, if friable, torn through. He would feel greatly obliged if Fellows would bring to his notice any account of similar cases not included in his paper. —*British Medical Journal.*

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Clinical Lectures.

ON SOME CASES OF ABDOMINAL DISEASE IN WOMEN.

By Mr. Lawson Tait.

At the Hospital of the Jefferson Medical College, on September 15, the day of the opening of the preliminary course of lectures, a large company of physicians and students were present, by invitation, to attend a clinical lecture by Mr. Lawson Tait, of Birmingham, England.

Prof. Parvin introduced the lecturer in a few words, as one who needed no introduction to the most of those present.

Mr. Tait said: I really do not know what Dr. Parvin has brought me here for, unless in his desire to show me attention he wishes to overwhelm me with kindness. I know this is a tendency you have here, to overwhelm visitors with kindness, as it is sometimes in my own country. I have been told constantly since my arrival that I am in the country of big things; and now I find myself in the city of biggest things. I was, this morning, in the biggest store I ever saw, and to-day I ate the biggest oyster I ever ate in my life, and now I am in the biggest amphitheatre of any medical college anywhere. I know that we have nothing like it in England.

Now I am asked to do the biggest thing of all, and to you upon cases that I never saw until a few minutes ago, and examined only for about ten seconds each. Under these circumstances it is not unlikely that I may make some mistakes, and make a diagnosis which is incorrect; but if I do so I must ask you to pardon me, not because I am often given to making mistakes of this sort,—I hope I am not,—but because since I have been here I have been taken somewhat with the American disease, and am too much disposed to "hurry things."

Before bringing the cases before you, let me say a word upon the diagnosis of abdominal affections. It has been said that the most difficult thing in the world is a diagnosis in the belly. I am in the habit of illustrating this in a familiar way, in this manner: here is a table; it has a table-cloth on it. Now, I know that this is a table and table-cloth, but it is impossible for me to say what kind of wood is in the table until the cloth is removed. Just so it is with abdominal growths.

Now, it is just in this character of disorder that hurry is most likely to cause mistakes of a serious character. In no other department is a careful diagnosis more needed than in abdominal surgery; for you proceed immediately to perform an operation for its relief, and you are sure to be found out if you make a mistake.

A distinguished American physician told me the other day—and I shall not forget it—that a doctor may tell his patient that he has dulness

here or rales there, and the patient moves off, and no one can tell whether he was right or not; but in abdominal surgery if we make a mistake we proceed to act at once upon the diagnosis by opening the abdomen. Therefore, on account of the obscurity of the case and the serious consequences of a mistake, you should act with the more caution in making up your opinion.

In proceeding to examine the patients brought before you, I will ask again that you bear in mind the necessity of careful and thorough investigation of the cases, and that, in consequence of my lack of opportunity to do this, I may make some mistakes; if I do so, and, upon subsequent examination, Dr. Parvin finds reason to correct any diagnosis that I may make this afternoon, you must pardon it.

OVARIAN TUMOR, AND EARLY OPERATIONS FOR ITS RELIEF.

The patient who has just been brought in is suffering with a disease which is a very common one with us, and also, I have no doubt, quite common with you; it is said to be a case of ovarian tumor by those who have had her under their care.

Upon exposing the prominent abdomen and inspecting its surface, the first thing that strikes my eye is the scar of a puncture near the navel and on a level with it, and a second one a little lower down. These are the marks of two tappings of the abdomen, which were not ordered by any one here. Upon this I will speak further in a few minutes.

You notice that there is a symmetrical uniformity about this abdomen. Now, whenever you see a symmetrical enlargement of the abdomen, you should suspect that it is not due to an ovarian tumor. It is likely to be one of three things: (1) pregnancy, which you must always eliminate; (2) a small tumor, or malignant growth in the abdomen, accompanied by effusion of ascitic fluid; and (3) a parovarian tumor.

Let me give you a word of caution just here: when you are dealing with the abdomen for purposes of diagnosis, you can never be too delicate with your manipulations. If you handle the patient too roughly, you will frighten her, she will contract her muscles, and you will not learn a great many things which it is advisable that you should learn. If you handle patients roughly in operations, there is also danger that you may do them some harm.

I have now learned, by passing my hands gently over the abdomen in this case, several things. In the first place, the case is not one of pregnancy, although of this I had satisfied myself before; secondly, it is not a parovarian tumor; and I have also learned that, in the third place, it is probably a small growth with a large ascitic effusion. Just at this place in the lower portion of the abdomen there is a small solid mass, and there is a larger one in the upper part which is not solid.

Now, my task shall be to find out what relation there is, if any, between the two masses. Here, in the epigastric region, I get a tympan-

itic, an intestinal, note upon percussion, and also a wave of fluctuation; low down it is dull. This was very useful to the man who tapped her, and upon it he probably based his diagnosis, and it would have given us considerably more information if the case had not been tapped; but now I am unable to say which of two conditions that may be present is before us, although it is important to know this, for upon it depends the advice we will give in the case. This softer portion may be an ovarian cyst which has partially collapsed after being emptied by tapping, or it may be an abdominal effusion. If it is the former, and an ordinary multicystic tumor, the treatment is perfectly easy and the result will be favorable; if, on the contrary, it is a small tumor surrounded by a large quantity of ascitic fluid, the state of the case is very much altered, and there are several things to be considered. I have found in the pelvis a small tumor over to the left, which may be the ovary in a state of incipient cystoma; it may be a papilloma, or it may be a malignant proliferation from some of the viscera. It is important to find out which of these it is. Now that we have fluid in the abdomen, it is impossible to come to a very definite conclusion, but could we have seen the patient before she was tapped, the relations of the intestines and the fluid would have aided the diagnosis. The growth may have been from a cyst of the ovary, but I think myself that the fluid was not removed from a cyst,—that it was ascitic; and it is probable that this tumor here is a papilloma. So far as I read the history, I think that the second is rather more likely.

Under these circumstances, what are you to do for such a patient? The first thing to do is to open the abdomen in either case. My experience teaches me that it is a surgical crime to allow a patient to go to her grave without an operation, where it offers a possibility of relief.

This leads me to speak of the condition of papilloma, which is generally regarded as most unfavorable. Now, on account of reasons which to you are evident, it is possible to speak more freely in the patient's absence than in her presence; and she will, therefore, be removed. I said that I would return to the subject of tapping. It is not at all an innocent operation, though it is not considered a misdeed to tap by many physicians. In my own country the practice of tapping still prevails, and, possibly, in this country: so I have not too much to say when a case is brought to me for operation after it has been tapped; but in my opinion there are very few cases in which it is justifiable to tap a patient; the only exception I would make would be in malignant disease. Let me say with regard to the effects of tapping upon the subsequent mortality after operation, that I have not lost a case after ovariotomy for several years, except those which had been previously tapped. It is perfectly positive that the greatest danger in a case does not come from adhesions, or such complications, but from tapping. No matter how difficult the case was, if it had not been tapped it did well. I think that the explana-

tion is a chemical one. The fluids in the interior of cysts are very rich in some complex kinds of albumen. I have made very many examinations of these fluids, testing them after various methods, and have come to the conclusion that no two kinds of cysts have fluids exactly alike. But all the cases I have lost were cases which had been previously tapped. I think that the reason for this lies in the physiological fact that the removal of this albuminous fluid renders the blood more coagulable. After the operation, the clot which forms in the pedicle runs backward in the vessels, and causes death from cardiac thrombosis.

My experience, therefore, makes me say that there should be no tapping. When a patient with an abdominal growth, ovarian or not, comes into the hands of a physician, his duty is either to remove the tumor without delay, if his experience and aptitude for operating are sufficient to undertake the case himself, or, if not, to hand it over to the care of one of his colleagues who has the skill and ability, for the credit of abdominal surgery, which both of them represent and desire to honor.

To return to our case: this patient has been tapped, and my impression is that the fluid was ascitic. The position of the punctures is above the line of the ordinary place for tapping ovarian cysts; the surgeon who did this tapping probably felt this comparatively solid tumor at the base, and believed himself more likely to reach fluid at this point than lower down, at the point of election. This, of course, is based upon the supposition that you are accustomed to follow the same rule that surgeons at home are, of tapping usually about half-way between the umbilicus and the pubes.

With regard to tapping, I rarely find myself called upon to perform tapping in preference to ovariotomy. I do not find the objection on the part of patients to operating that existed ten or twenty years ago, but I have not had a patient for the last five or six years who urged such objection or refused operation. When you can say positively, as you now may, that ninety-six per cent. of such operations should get well, you are not likely to meet with refusal. But, you may say, are there not cases which have been tapped many times without apparent injury?

I remember that I saw in the county of Hants a tombstone that bore an inscription declaring that the deceased had been tapped for ovarian dropsy forty-seven times. Being on a tombstone, of course it must be true; if so, this is the largest number of such tappings on record. My reply is that these large cysts are generally not ovarian but parovarian cysts; they are filled with a fluid of low density, which contains almost no albumen, and very little salts. Now, it is easy to conceive that in a single large cyst with a fluid that does not contain much albumen, the tumor may be tapped many times without weakening the patient very much; but in an ovarian cyst filled with albuminous fluid the result would be very different. This fact, then, would be no argument in favor

of a change in treatment and a return to the practice of tapping ovarian cysts, a practice which is now less frequent in England than it used to be, chiefly through the efforts of my friend Dr. Bantock and myself.

An early operation is advisable. The patient is not subjected to the physical labor of carrying around a large growth, she is less likely to have papilloma, and, finally, if a young woman, she will be glad to be relieved of the annoyance, if not more, of exciting observation by her large abdomen. The surgeon will find an early operation desirable, because the tumor is small and more easily removed, he will be less likely to find adhesions, the operation will be more readily done, there are fewer chances of having recurrent attacks of inflammation or peritonitis afterwards, and, finally, the danger from early operations is almost *nil*. I have little hesitation in saying that, in a series of early operations, where there has been no tapping, the mortality would not be over one per cent. If you should hear the contrary opinion expressed with regard to tapping from that I have just given you, you will find generally that it is by a white-haired man, while you will hear the opinion that I have expressed from those whose hair is brown or just on the turn; that is, the younger men advocate this view, the older men condemn it. I do not mean to imply that young men are always right and that old men must be wrong. There is a proverb, "Young men think old men fools, but old men know that young men are fools." I mean simply to teach that science is constantly progressing from age to age, and that each age is something in advance of that which preceded it.

Perhaps I ought to say one word about this case in conclusion. Suppose that I believed that this patient was suffering from papilloma—the disease which we so much dread after opening the abdomen—developing around a tumor: I would still proceed to remove the tumor, even if I were certain that papilloma were present. And my reason for this is a very curious one. I cannot pretend to explain it, but the occurrence is one of which I am quite certain. I cannot say without my figures before me just how many times I have met with this condition, but it is certainly a hundred times. In operations especially, and in large proportion in ovarian tumors, also in cysts of the parovarian and in myoma, and sometimes when there was no tumor at all, when I opened the abdomen for exploratory purposes, without knowing what I would find, have I encountered this curious velvety condition of the peritoneum which I recognized as papilloma. I remember a case seen by Mr. Pemberton, my colleague at Birmingham. The patient, a young lady, had an enormously enlarged abdomen, due to ascites, a fact I had recognized. I opened it by incision, as my practice is to make a small incision for exploration and drainage; by this means the fluid is evacuated just as well as with the trocar; but you cannot feel anything with a trocar, but with a clean cut of two or three inches you can introduce one or two fingers,

and find out the actual condition of the pelvic organs as you can in no other way. I may add that I always make the exploratory incision for the removal of fluid, and find that it readily heals. Now, in this case of which I am speaking, I opened the abdomen and I found the peritoneum universally covered with papilloma. I simply put in a drainage-tube and cured the patient. It is now four years since this was done, and the patient remains entirely well.

I recall another case which I operated upon several years ago. Papilloma was present, and I was obliged to leave two masses in the abdomen. She is now about sixty-five years of age, the tumors have entirely disappeared, and she is perfectly well.

I have, therefore, concluded that there are two kinds of papilloma, malignant and non-malignant; one kills the patient in a few weeks or months, and from the other the patient will recover after an operation. I have carefully taken specimens from each and subjected them to microscopical examination, and competent experts could find no difference whatever. The non-malignant cannot be distinguished from the other. There is no question but that there are certain cases, however, in which it is malignant, nor that in others it is perfectly curable. So that, even if I knew this to be a case of papilloma, I would open the abdomon, and if possible, remove it, for it is possible that by the removal of the tumor I may cure the patient.

I said, "if possible," to remove the tumor. This reminds me that, after opening the abdomen, you must (let me use an American word here) "prospect" a little, and make up your mind fully what you shall do. The most fatal operations are those which have been abandoned after removal of a portion of the growth. If you remove part of the tumor and feel tired, and feel like closing the abdomen, remember that you are exposing your patient to a condition the mortality of which is about sixty per cent., but, if you have the courage to finish the operation, you may cure your patient.

In these cases, of course, skill in manipulation is necessary, and this will come by experience. If your experience and courage are not equal to the operation, place your patient in other hands, and the result will be a better one for your reputation and for the patient.

Exploratory Laparotomy and Removal of the Uterine Appendages.

The next case is one which involves considerable difficulty in diagnosis, and requires a knowledge of the past history of the patient in order properly to decide the question of treatment. This knowledge I have only very imperfectly obtained from my few moments' conversation with her, but I will take it for granted that the young girl's sufferings are real and intense as she states, and that everything has been done for her relief that could be done by medical means. Now, I might supplement this by

giving you an account of a similar case which I operated upon the other day in the State of New York, where the history was better known to me than this one is, or I might cite some cases under my own care at home, which were treated by removal of the diseased uterine appendages; but I will not take up your time with such accounts, because I wish to discuss with you a few points in relation to the operation itself as compared with other means of treatment.

She is a young girl, 21 years of age, and has a pronounced crop of acne upon her face. When a woman comes into my consultation-room with a crop of acne, I always ask for a copy of the prescription that she has been taking, and I expect to find that it is bromide of potassium, which is the fashionable drug in the practice of some physicians for all the ills that women suffer from. I never met with anybody who could swear that he cured any woman with it, but it is a convenient pump-handle and appears to be diligently worked.

I usually am told, in answer to my questions as to previous treatment in these cases, "Oh, yes; I have taken lots of bromides. I went to Dr. A., Dr. B., Dr. C., Dr. D., Dr. E., and Dr. F., and Dr. A. gave me bromide of potassium, Dr. B. gave me bromide of sodium, Dr. C. gave me bromide of ammonium," and so on. The latest that I heard of was the bromide of nickel. Finally, she stumbles upon Dr. F., who puts in a pessary; for what, goodness knows, but he finds her ailing, and puts in a pessary, and the chances are that it does harm instead of good.

I removed a pair of Fallopian tubes crammed full of pus, just before I left England, from a woman who had spent eighteen months not in "riotous living," but in going round through a course of doctors. Another patient had a tray-full of pessaries, of various shapes and sizes. She would exhibit them as curiosities. "This one," she would say, taking one up in her fingers, "was inserted by Dr. A., and I wore it a week; Dr. B. introduced this one, and I could only wear it a few days; and this one must have been invented by the devil himself, for I could not wear it at all."

To return to our supposed case: she finally leaves the pessary-doctors, and the bromides, and goes to another, who dilates and splits the cervix uteri. So she goes from one quack to another, until she comes under the care of a surgeon who will operate and relieve her. I do not mean to declare that all women suffering with menstrual disorders require operation; by no means; although I have been misrepresented as saying this. I have never said it. But I mean to say that a large number of cases of these suffering women demand and require relief by operation; and of this class I believe that our patient here is one.

Now, if a woman with a history of wandering about for a considerable period among different physicians, seeking relief from menstrual disorders and finding none, who has used various contrivances without benefit, and

taken many drugs, almost to the destruction of her health, comes to you, and you are persuaded from the account she gives of herself that her sufferings are real and not imaginary, you are justified in making a small incision in the abdomen and in putting your fingers down into the pelvis to find out if you can relieve her.

I have been accused of abusing this operation, but, I think, unjustly. Every new operation is liable to be abused, but increasing experience soon teaches its proper limits.

I said that before operating you should be satisfied that the patient's sufferings are real and not imaginary. How can we ascertain if the patient's sufferings are real? Now, in my experience, I have always found that if, after putting the operation conscientiously and fully before the patient, she consents to undergo it, I have never operated without finding something the matter that would warrant the operation. You may say that this is placing too much responsibility upon the patient; but is it not what we have to do in other departments of surgery? A man comes with a chronic disease of the knee requiring operation,—amputation or excision. The surgeon explains the risks and advantages of each operation to the patient, and recommends one or the other, but the patient must take the responsibility of deciding. I always explain the operation carefully, and say that I will consult with her medical attendant or any number of them that she wishes, but the result of the consultation must be laid before the patient, and she must take a large share of the responsibility in the decision.

There are persons who have declared that this operation is done for low and immoral purposes. The first reply to this is that the operation is always done in such a public way as to refute any such charge. It cannot be done without being known; there are always nurses in attendance, who would tell of it, and it could not be kept secret. It is true, I have been approached by women who did not wish to bear any children; but we have some conscience left; and those who perform this operation are not to be considered as having less scruples than other surgeons. Moreover, as I have just said, the operation is a semi-public one, and it would soon be known if it were done with such motives. So far as I know, it has never been openly and directly charged upon any one in England that an operation of this kind was done for immoral purposes.

It has also been said that the operation is done sometimes for another immoral purpose,—simply on account of the fee. But if this is brought to me, it might raise the same question with regard to the others who give bromides, put in pessaries, or divide the cervix. I think that the balance of the argument is in my favor; at all events, I have thrown down the gauntlet in England, and no one has yet taken it up.

Now, to return to this young girl. She is obliged to work for her living. Circumstances are very much against a patient who must earn

her own living, as compared with one in comfortable circumstances in her own home. Luxury is much in favor of relief from ovarian disorders. A woman who can rest during her painful menstrual period is better situated for recovery than one who is obliged to work for one week in every month while suffering, and the latter requires relief by operation more decidedly than the former.

When a woman like this comes before you, who is compelled to work in order to live, and for one week in the month is incapacitated from working, you may be certain that stopping menstruation will give her relief, and you can do so just as truly as, in another patient whose eyes only see at twenty feet, you may by proper glasses enable him to see at a normal distance.

In this case, I have no doubt, if I could examine her, I would find her Fallopian tubes in a state of inflammation; but, even if they were found to be perfectly healthy, it would be better to remove them and stop this terrible suffering at each menstrual period.

About the consequences of the operation let me speak a word. I recall that a certain eminent ecclesiastic opposed the practice of vaccination and publicly stated in a sermon that dreadful things, such as a cloven hoof, and horns upon the head, would be caused by it. Now, it appears that we are treated in much the same way about this operation. We are told that the patients will get masculine, and that there will be an overgrowth of fatty tissue, and various other imaginary results. I am reminded, when I hear this, of the German professor who evolved a camel from his inner consciousness.

It is well known, from the practice in Eastern countries of removing the testicles in men and ovaries from women, that, if the operation be done before puberty, the patient will retain to some extent the infantile type; the hair does not develop upon the face, nor does the voice change in men; but these consequences do not occur when the operation is performed after adult age has been reached. I have removed the ovaries in many cases and for various diseases, and I have never seen any of these asserted bad results, and no changes in the condition of the individual except for the better.

These ridiculous exaggerations I have referred to, you will find in the first edition of Spencer Wells, and to my surprise I found them still more marked in the second edition; they are without any foundation in fact whatever. On the contrary, in the great majority of cases there is immediate relief from the sufferings and from loss of blood. Perhaps entire relief may be delayed for several months, and in some cases it may not come at all; but, I ask you, is this a valid argument against the operation? The operation for cataract sometimes fails, there is suppuration of the globe, irido-cyclitis, or other accidents which may lead to failure; and I might bring examples from other departments of surgery

that would also illustrate this point. In fact, the operation of ovariotomy for the relief of pain and hemorrhage gives good results in comparision with other operations.

It is true that woman may have some inconveniences associated with the climacteric, but she would be obliged to go through them some time or other if she lived; they are part of her menstrual life. Some women have very little trouble, while others have a good deal and may become drunkards, etc. Fortunately, I have never seen any such results following the operation.

There is one condition, however, which I have seen develop after ovariotomy, after removal of one or both ovaries, and even also removal of the uterus. It is a condition of acute melancholia. I have operated now over nine hundred times, and have seen seven such cases in all. Taking into account the fact that I lost more of my earlier operations, I think that we may take it for granted that about one per cent. of our cases will take on this form of insanity and will die with the disease. I do not know if other surgeons have met with anything like so many cases in their operations; but we must bear in mind that for some unaccountable reason certain of our cases will be attacked by melancholia. It is the one objectionable point in the operation of which I am aware.

Uterine Myoma.

The next case is one of myoma of the uterus; in fact, we have two cases, which I will briefly discuss, without bringing them in, since you could feel nothing, and certainly see nothing, of the disease.

The first case is 48 years of age, and does not have very much hemorrhage, and I do not believe that she suffers very much pain. In her the tumor is very hard and consolidated. I think that this belongs to the class of cases in which nature is curing the disease and thus gradually relieving the symptoms. The other woman is 40 years of age, and has had hemorrhages; being younger than the former woman, an operation may be taken into consideration, since she has to be tided over some years before her climacteric.

We did not use to operate upon women with myoma, and now, if the patient is forty-seven, we do not operate before giving ergot a faithful trial; but in younger women, under forty, it becomes a very important question. It is a question in which the patient must take a good deal of the responsibility in answering, and contribute a good deal to the answer.

If the patient suffers every month, and loses blood for a week or more, this question comes up: is it preferable for the patient, say thirty-six years old, to go on for twelve or fourteen years suffering in this way, or to perform an operation the mortality of which is about four per cent.? I can only say that if I were the patient I should have the operation done.

Now, this is comparatively a common affection, and we meet with it

often, especially in the colored race, in the dissecting-room and post-mortem table, in cases where it gave absolutely no trouble during life, so that we have come to look upon it as of little importance. We are laboring under some traditions with regard to uterine myoma, and this is one of them,—that it is an insignificant affection. I need hardly stop to say that those myomas that give no trouble during life are not the ones that trouble us; it is those that *do* give trouble that apply to us for relief, which it is our duty to give them.

Another tradition with regard to myoma is that it will cease at the climacteric and give no further trouble; but we find that in many of these cases the growths go on developing for years after the menopause should occur, and the patient suffers from hemorrhages that severely affect her health.

There are two operations for the relief of uterine myoma; you may remove the uterine appendages, and by this you remove the tendency to these troubles which afflict the poor patient. It has been now several years—six or seven, perhaps—during which I have employed the operation, which I consider the proper one, as the hemorrhage almost always ceases soon after its performance. The other operation is the removal of the uterus itself; and this may be done if the hemorrhage does not cease after the removal of the uterine appendages.—*Philadelphia Med. Times.*

INTRA-UTERINE THERAPEUTICS.

By Thos. More Madden, M.D. F.R.C.S.E.

Obstetric Physician Mater Misericordiæ Hospital, Dublin: Physician Hospital for Sick Children; sometime Examiner in Obstetric Medicine, Queen's University; Fellow of the Academy of Medicine, etc.

No branch of modern surgery has made such rapid progress as gynecology, and in no respect is its advancement better shown than in the present treatment of intra-uterine disease, as compared with that which prevailed twenty years ago, when many of these complaints now so readily cured were entirely unrecognized or hopelessly neglected. The development of intra-uterine therapeutics is not, however, quite as novel as is generally supposed. Elsewhere the writer has exemplified the text, "all knowledge is but oblivion," by a reference to the revival in modern practice of the long-forgotten use of the vaginal speculum and uterine sound, as well as the re-employment of anæsthetics before gynecological and other operations. Still more strikingly is this return to ancient ways illustrated in the present method of dilating the cervical canal and cavity of the uterus, which, together with the intra-uterine use of nitric acid, were all, to some extent at least, anticipated by Ambrose Parè in 1597, Philip Barrow, in 1639, and other early writers, in whose neglected works may be found the germ of not a few *recent* medico-chirurgical ideas. These coincidences, however; in no way detract from the credit due to the late

Sir James Simpson for having within our own time practically brought intra-uterine diseases within the reach of therapeutic assistance. Nor do they lessen the merit of Dr. Kidd's subsequently improved method of rapidly expanding the cervical canal, nor of his bold and successful application of strong nitric acid to the internal surface of the uterus.

Turning, therefore, to the more practical aspects of the subject under consideration, namely, the circumstances that call for intra-uterine treatment and the procedures that can be employed for this purpose, he submits some remarks on these points, based on the notes of a large number of cases of intra-uterine disease, treated in the Mater Misericordiæ Hospital, where during the past six years 3,800 patients have been under observation in the gynecological department. Of the cases there admitted into his wards, including almost every variety of disease peculiar to woman, intra-uterine exploration or treatment was found necessary in about 30 per cent., and was resorted to in them when not specially contraindicated by pregnancy or pelvic cellulitis.

Methods of Dilating the Uterine Cavity.

It is essential for any intra-uterine treatment, in the first place, if the orifice and cavity of the uterus are not sufficiently patulous, they should be mechanically expanded; and secondly, whatever application is employed should be brought into actual contact with the true endo-uterine surface. These propositions may perhaps appear too evident to need any notice here. Nevertheless, failures in intra-uterine medication are generally due to their insufficient recognition, and hence a few practical observations upon these two points may not be superfluous. The dilatation of the cervical canal and uterine cavity in pluriparous women of lax habit may in many instances be rapidly accomplished by Hagar's or Godson's dilators or by Barnes' hydrostatic bags. But in other cases the most efficient method of effecting this is by the introduction of a sufficient number of solid laminaria bougies. Sponge tents, or the short sea-tangle or tupelo tents still recommended by some authorities, and yet sold for this purpose, are all so unreliable in their action and so troublesome in their use that for several years he has ceased to employ them.

In using laminaria bougies, the length of the uterine cavity having been previously carefully measured, as many of them as can be packed into the cervical canal should be introduced as far as possible without actually touching the fundus uteri, and then broken off at the os externo, and left in the uterus from twelve to twenty-four hours, unless, from excessive pain or any sudden rise of temperature, it becomes necessary to remove them sooner, as is frequently the case. The cavity of the uterus will then generally be found sufficiently dilated for any purpose, and should be washed out with a warm antiseptic solution, after which the gynecologist, with a carefully carbolized hand, may proceed to explore the parts, and employ whatever local treatment is required.

In some few cases where a part of the cervical walls or the inner orifice offer a rigid, unyielding resistance to the necessary dilatation, we may be obliged to overcome the stricture by incision with a bistoury, cache or metrotome. These cases, however, are infrequent, and this expedient is not one to be adopted without absolute necessity and great caution.

Use of the Intra-Uterine Curette.

With the view of ensuring that the intra-uterine application reach the surface for which they are intended, Dr. Athill advises us to reserve such medication for the period of denidition, after menstruation. This suggestion, however, is not always feasible, nor has Dr. Madden found it necessary to postpone intra-uterine treatment merely to hit off the next period of denidition, inasmuch as for gynecological purposes we may sufficiently obtain the effect of this process by the removal of the unhealthy or hypertrophied endo-uterine mucous membrane by a suitable curette.

In some instances we may employ for this purpose the ingenious instrument invented by Dr. Duke, of Dublin, designed for a cervical curette, but which may also be employed within the uterine cavity. In most cases, however, a stronger instrument is required, and the writer, therefore, prefers his own modification of the curette, an "intra-uterine scoop." This was exhibited to the meeting, and is different in form as well as in principle, from any other instrument of the kind, as it may be set at any angle while in utero by a simple mechanical adjustment in the handle, and will thus scrape down the uterine wall in any direction without withdrawing the instrument, and having beveled and sharper edges than the ordinary dull wire curette, is more effectual in removing that pseudo-membranous albuminoid coating by which, in cases of chronic endo-uterine inflammation, intra-uterine medication is so much impeded, though in some instances, indeed, this pseudo-membrane also serves to protect the uterus from the over-meddlesome zeal of rash and injudicious practitioners. However, our present purpose is to consider the use and not the abuse of intra-uterine therapeutics, and therefore we must consider the use of an uterine curette as in many instances indispensible, not only in the way just referred to, but also with the object of removing the granular, softened and diseased mucous membrane, so as to expose the true inner surface of the uterus to the action of whatever remedies we apply, and is, moreover, specially serviceable in cases of endo-metritis, from the local depletion its use occasions from the congested or hypertrophied parts.

Intra-Uterine Medication in Congestive Hypertrophy of the Uterus.

The majority of cases in which this local treatment is resorted to are instances of congestive hypertrophy, the existence of which in any case is generally disclosed by obscure pelvic discomfort and sense of uterine fullness, displacements from the weight of the hypertrophied fundus,

menstrual irregularities, especially menorrhagia or dysmenorrhœa, and uterine leucorrhœa. Besides these, in such cases some sympathetic disturbance of the general health are always present, and especially some one or more of the protean manifestations of hysteria or other nervous disorders that are invariably connected with every form of chronic uterine disease.

It has been long and somewhat warmly disputed whether or not uterine inflammation has anything to do with the pathological conditions just referred to. This controversy, however, concerns terms rather than facts. What was formerly called chronic inflammation of the uterus, and is still so named by Dr. H. Bennet and others, or, as Dr. Athill terms it, endometritis, has long since been described by recent writers as chronic parenchymatous metritis, alveolar hyperplasia, chronic uterine hyperæmia, and perhaps more accurately by Dr. Emmet and other American writers as congestive hypertrophy of the uterus. Practically it matters little which of these terms we adopt, provided it be one indicating the necessity for treatment by which the vascular tissue of the engorged endo-uterine surface may be removed,, whether by intra-uterine medication or otherwise.

Subinvolution of the Uterus,

However important in other respects, need not here occupy attention, as what has been said with regard to the last described condition applies almost equally to this. Endo-metritis or congestive hypertrophy may, of course, exist without subinvolution, but we can not possibly have the latter without the former.

Intra-Uterine Applications.

The most active of all the various agents employed for intra-uterine medication is fuming nitric acid, introduced into modern gynecological practice by Dr. Kidd, in the Coombe Hospital,. and subsequently employed by Dr. Atthill in the Rotunda and by Dr. Madden in the Mater Misericordiæ Hospital, Dublin, before it was thus applied elsewhere. For the intra-uterine use of nitric acid it is necessaay that the os uteri should be dilated and exposed to view, the vaginal wall properly protected from injury with the acid, and the uterine wall drawn down to the vulva. For this purpose he has designed and used an uterine tenaculum which can be set at any angle, and instantly released from its firm hold on the cervix by merely turning the screw set in the handle. In this way the uterus can be easily swabbed out with strong nitric acid, the whole charge of which is thus expended on the endo-uterine surface, so as to avoid the risk of injuring the vaginal walls or external parts, though as an additional precaution these should be well smeared over with vaseline beforehand. Immediately after the application the uterus should be thoroughly washed out until no trace of acid is discoverable in the returning water, and finally, if any pain is complained of, a morphia suppository should be intro-

duced. When thus employed nitric acid may generally be safely and effectively used in those cases of intra-uterine disease in which its application is really called for, and to which it should always be very carefully restricted.

Solid nitrate of silver was formerly in some vogue as an intra-uterine application, a small bit of it being introduced and left in utero in cases of subinvolution and even endometritis, even without any preliminary dilatation of the os internum. This practice, however, is likely to give rise to local inflammation or metro-peritonitis.

Iodoform, in suppositories containing from 7 to 10 grains, will be found useful after more active treatment, in some cases of congestive hypertrophy of the uterus. Carbolic acid, and above all, iodized phenol, as well as the various other preparations of iodine, are, however, probably the most generally useful of all intra-uterine applications, and of these the Churchill tincture, or a solution of iodine in glycerine of the same strength as the ordinary tincture may be locally applied freely and with advantage in many cases of congestive hypertrophy, and also in some cases of intra-uterine tumors in which operative treatment is not permitted or is not advisable.

Of the injection of the tincture of iodine through the undilated canal, which has been recently again recommended for the same purpose, Dr. M. Madden speaks with some caution from his own experience of its use.

Intra-Uterine Tumors.

The treatment of intra-uterine tumors affords the most signal proof of the progress of modern gynecology. Not many years ago a woman suffering from a large and rapidly increasing submucous or interstitial uterine tumor was virtually regarded as being under an irrevocable sentence of death at no distant period, while now a patient similarly afflicted may be restored to health by a comparatively facile, bloodless and painless operation. We can not here, however, make any reference to the successive stages in the achievement of this result, with which the names, *longo intervalo*, of Ambrose Parè, Leveret and Simpson will ever be associated.

The scope of this paper does not permit any farther reference to this branch of intra-uterine therapeutics, unless it be to add that in the past few years the author has removed such tumors from the uterus in forty-two cases, of which four were intramural, eighteen submucous fibroids, and twenty were either pedunculated tumors or intra-uterine polypi. In one case six of these tumors were removed at one operation, and in another two large tumors, which had apparently coalesced from opposite sides of the womb, were taken away, and finally, in three of these cases the patients died, and in thirty-nine they recovered.

Intra-Uterine Irrigation

Uterine injections, if administered with the ordinary siphon syringe, are by no means as harmless as they are commonly supposed to be. Dr.

Madden has reported cases of acute metritis, uterine colic and even embolism, caused by the use of this much abused instrument, and hence he recommends irrigation instead of syringing. For this purpose, his own irrigator, described in the 3d volume of the "Dublin Obstetrical Proceeding," p. 183, is probably as good as any other, and certainly has the advantages of being very portable, easily employed and readily constructed.

General Therapeutics of Endo-Metritis.

While fully recognizing the great value of local or intra-uterine treatment in appropriate cases, we can not, at the same time overlook the fact that there seems to be a decided tendency to rely somewhat too exclusively on topical medication in all uterine diseases. He therefore urges the importance of conjoining constitutional remedial measures with whatever local medication may be required in their treatment. In such cases there are no more valuable means of hastening the cure of chronic uterine disorders than change of climate, and the use of various thermal and mineral waters. Sulphurous, chalybeates, iodated, or arsenical, that may be severally selected in accordance with the special exigencies of each case. Dr. More Madden can speak from practical experience as to the benefits then derivable in various chronic intra-uterine diseases, and his views have been confirmed by the freedom with which they have been appreciated by some recent writers from those works, (*a*) in which he has demonstrated the advantages of mineral waters, and change of air as a supplement to local treatment in such cases. These benefits are not only the special remedial effect of whatever mineral spring may be chosen, but still more the moral and physical benefits of change of climate, occupation, and mode of living included in the journey to any distant watering place.

Notwithstanding the incredulity of some modern gynæcologists, as to the efficacy of all drugs in chronic intra-uterine diseases, the writer asserts that those who conjoin appropriate constitutional remedies with local medication in such cases will better cure their patients than those who rely altogether on the latter. In the majority of instances of endo-metritis, a course of chloride of mercury in minute doses given in tincture of bark, and continued until after the subsidence of all local congestion will be found useful. In patients of strumous habits chronic uterine diseases should be treated not only locally but also constitutionally by some of those special iodated and ferruginous tonics and alteratives, with which modern poly-pharmacy has so abundantly supplied us. In women, moreover, the gouty or rheumatic diathesis more generally manifest their existence by uterine irritation than in any of those external forms of these

(*a*) "On Change of Climate." By T. More Madden, M. D. 3rd edition, London, 1875.
"The Spas of Germany, France, and Italy." By the same. 2nd Edition, London, 1884.
"The Health Resorts of Europe and Africa." *Ibid.* London, 1875.

same constitutional tendencies observed. These facts, too generally ignored, explain the efficacy of alkaline mineral waters found at Vichy in many obscure chronic uterine complaints, and also accounts for the utility of iodated and arsenical springs such as Kreuznach and Wildegy, or Royat and Monte Dore, in shortening the course of conjestive hypertrophy of the uterus in patients of either constitutional proclivities.

In conclusion, by thus availing ourselves of all the varied resources of constitutional as well as local, or intra-uterine, treatment in our dealings with chronic diseases of the uterus, we will best consult the advantage of our patients, and reflect credit on that gynæcological art which it is our province to cultivate, and to raise from a narrow specialism to its true place as an integral part of the great science of medicine.—*Med. Press.*

Original Articles.

CROUP.

A Paper Read before the Philadelphia County Medical Society, Oct. 5, 1884.

By Dr. T. V. Crandall.

The essential characteristics of true croup, and diphtheritic croup, have been under discussion for a number of years. The last paper, I believe, read before this Society on this subject was in November, 1875, by our popular President, Dr. Welsh. Many prominent German and English authors advocate their identity, while our best American authorities regard them as distinctive, and many medical gentlemen have expressed *positive* views in the recent issues of the medical journals against the identity of these diseases.

On seeing the annual return of deaths from croup, for 1883, at five hundred, I resolved to correspond with physicians enough to obtain reports of one hundred cases, and make a home study. Through private sources and the Board of Health Register, I obtained the names, residences, sex, age, date of death of patients; names and addresses of the attending physicians, and report these results. My first inquiry, "Did you perform tracheotomy?"—shows fifteen cases operated on and death resulting by the disease extending downwards. Second, "Did you find diphtheritic complications?"—twenty-nine cases are reported as diphtheritic croup; seventy-one, true croup. None of the diphtheritic croup cases were operated on; the physicians giving as a reason, "that to operate in these cases is useless." "Was permission to operate refused?" This answer is avoided or omitted by twenty-five; twenty replies did not think it of any use to ask or to operate, as their case was too far gone when they were called; twenty-six were refused by relatives. In connection with the above investigation, I will make a few comparisons between the diseases under discussion, though familliar to you all. From 1846 when

one hundred and eleven cases of true croup were reported, there was a gradual increase in death until 1859, when it reached three hundred and twelve. No cases of diphtheria are reported until 1860. From 1850 to 1860 there were 2539 deaths from croup. From 1860 to 1870—3031 deaths from croup; and in this decade 2795 deaths from diphtheria. Since 1860 diphtheria becomes an established fact, giving, say, thirty per cent. of diphtheritic croup, yet there is no great increase in true croup returns above what we would expect by growth of population.

"It is difficult to estimate the number of deaths from true croup since diphtheria has made its appearance in the mortality list of the city as many cases of diphtheritic croup have unquestionably been returned as pseudo-membranous laryngitis" (Meigs and Pepper). I lean towards the belief that many physicians losing cases of croup and believing in its identity with diphtheria, would take the benefit of the doubt, and call it diphtheritic on general principles; *i. e.*, their conclusions easily get the start of their reasoning, although we have such overwhelming proof of the distinctiveness of these diseases.

The largest weekly return in 1883 was twenty-four deaths from croup in the week ending December 29. The first day, heavy snow, followed on the second day by rain; third day, light rain, and cloudy; fourth day, cloudy; fifth day, light rain; sixth and seventh days, clear, with the thermometer 30° to 34° above zero. This condition of humidity, with a mean temperature of 31°, and the ground covered with snow and slush, proves that cold and dampness produce croup. All writers agree that diphtheria is epidemic and contagious. "Croup is sporadic. We may produce croup in rabbits and dogs by an application of caustic to the tracheal mucous membrane, and the inspiration of hot vapor of water" (Hensch). "It is *on* this membrane that croup begins. It is *in* the mucous membrane of the pharynx that diphtheria begins as an exudation, and spreads to and into the tracheal membrane" (Flint, Bartholow, Da Costa, Day, and others). The physicians of this city, who have kindly answered my inquiries, report seventy-one cases of true croup, in a hundred, that had no diphtheritic complications, and fifty say directly, or indirectly under the head of general remarks, that they were not called early enough to do much by treatment; the immediate cause of their being called was sudden attacks of dyspnœa, etc. But how different when constitutional symptoms in diphtheria are so alarming, that before there is exudation, the physician is called to treat these symptoms, caused by specific poison.

We are unable to say that the pseudo-membrane of croup extends to or is found in the stomach, kidneys, intestines, or any part except the trachea or bronchi. All authorities agree in finding diphtheritic deposits on all the above membranes, and say it may be found on any mucous membrane or abraded surface. These advocates of identity distinctly

call it diphtheritic when found in the above localities, but identical with croup when it occurs on the fauces and tracheal membranes. "Truly, then, this idea of unity is drawn from coincidences. The pseudo-membrane in both, and the cynanche not always in diphtheria, but always in croup, being the principal feature of the casé" (Crouch). "When only the epithelium is destroyed, the fibrinous exudation lies only on the 'membrana propria' of the mucous membrane, from which it can be readily stripped off, without loss of substance. This is croupous. When the primary necrosis involves the tissue cells, as well as the epithelium, the fibrinous éxudation extends from the surface *into* the tissue of the mucous membrane, and cannot be removed without loss of tissue. This form is properly diphtheritic" (Flint). There are greater pathological differences between these diseases than between typhus and typhoid fevers, yet we make marked distinctions, and draw the line closely in diagnosing them.

We have seen that the cause of croup is cold and dampness. We all know diphtheria is caused by a specific poison. We find croup local, and constitutional disturbances subsequent upon the local trouble. We find the constitutional symptoms first in diphtheria. We have found croup in the larynx and trachea, and diphtheria anywhere; more frequently in the pharyngeal membrane. The most important change is found by pathologists in the blood. And here also is the greatest point of difference. A healthy child is taken ill with croup without any previous time or blood-poison to debilitate, and dies in three or four days—in a few hours, sometimes, after having played and been around the house; do you find the extensive changes in the kidney structure reported after diphtheria? We do not have endocarditis, or rapid fatty degeneration of the heart, and numerous structure changes reported in diphtheria, nor the altered condition of blood.

Tracheotomy.

I am an advocate of tracheotomy. There are many physicians in this city who do not believe in it. Just in this particular this question of identity of these diseases needs to be more definitely settled. If they are identical, it is argued that to operate in diphtheria is useless. Some of the answers to my inquiries say it would be madness! Then this identity theory is mischievous, inasmuch as, if physicians do not believe in, and make themselves familiar with, the operation, they neglect the most important remedy. Prof. Von Langenbeck, of Berlin, made a study of 556 operations from 1870 to 1876. Thirty per cent. recovered, and of these 85 were on children under two years of age; the youngest seven months old (Am. Jour. Med. Sciences, April, 1878). Dr. Geo. Buchanan operated on 46 cases; 17 cured, 29 died; of these, true croup 16, cured 6, died 10. In diphtheritic croup, 30; cured 11, diéd 19 (British Med. Jour., Sept. 4, 1876). Dr. Boeckel reports 22 cases, and 13 recoveries (London Med. Record, Nov., 1880).

A physician of Strasburg operated on a child six weeks old successfully; Mr. James Bell, of Edinburgh, at six months: Mr. Tait, seven months: Dr. Greenfield, ten months; Mr. Cooper Foster, at eleven months (Am. Jour. Med. Sciences, Jan., 1881). And a larger percentage of younger children could be obtained, if the effort were made more frequently. Bayne found, in investigating 920 cases, that better results were obtained in private practice than in hospitals (Med. News, Aug., 2, 1884).

Is not the question, "Have ANY lives been saved by tracheotomy in diphtheria or croup," paramount to how many? Is not the patient fully entitled to the chance by a single opening of the wind-pipe, which gives no constitutional surgical shock? If we are refused by parents, it is in part our own fault? The lack of confidence on our own part is quickly observed by the laity. Let a sufficiently determined and enthusiastic physician or surgeon believe he can save a child, and show it in manner, and the loving mother will soon catch the inspiration. Let him persevere, and a fair percentage of successes will reward him for his untiring energy.

I have quoted some foreign authors on statistics of tracheotomy, as we have not yet arrived at that state of perfection in gathering statistics which they have. If our Society had a record-book, and its members would agree to make annual reports on this subject, we could arrive at an approximate idea of how much this operation is resorted to in this city.

If every hospital in the city would prepare a room with the necessary aparatus, and do away with "red tape," to the extent that any physician in good standing could take his patient there and operate himself, if he wished to, putting the patient in care of a trained nurse, admitting the mother or some near relative; if some or all of the dispensaries did the same, then there would result a decrease in the death-rate of croup. At present we have some practitioners who use turpeth meneral and *never lose a case.* Others calomel, with almost like success; then there are as many known cures as there are for rheumatism, and yet a death-list of four to five hundred a year.

CASE 1. I was called, December, 1875, to see Lizzie B., æt. 4 years; arrived at 8 P. M.; found child on a settee; complete apnœa existed at the moment of my arrival. The attending physicians had abandoned the case as hopeless, earlier in the day. With the assistance of one woman, who held a lamp with a broken chimney, I then divided the skin-fat and fascia by one incision, exposed the commisure of the sterno-hyoid muscle and made an incision into the trachea. Not having any assistants to hold retractors, I separated the edges of the wound with my bent ear-forceps in my left hand, while I inserted a single canula with my right hand. This little instrument has served me in emergencies instead of one or two assistants, on several occasions, for, by inserting the forceps, closed, into the tracheal incision, I separated the walls, introduced the canula, and

obviated cutting away the walls of the trachea as recommended by some authors. After the first expulsory efforts, which were very violent, the child breathed naturally, the pulse came down, full and strong. The temperature, 105°, fell, in a few hours, to 102°. On the 11th, I asked my friend, Dr. Swayzee, to assist me in removing the single canula, and inserted a double canula, he expressed serious doubts as to the childs recovery. She is now a large, healthy young girl.

Case 2. December 15, 1876. J. C., age 3 years 6 months. This case of true croup I was called to, too late. The usual treatment of no avail and apnœa almost complete. I operated with the assistance of women and all went well until the third day, when in my absence, and in the temporary absence of a level-headed relative who had nursed my little patient faithfully, an ignorant woman in charge allowed the tube to become displaced, and before I reached the house the child had died of suffocation. I felt keenly the disappointment, as I had within my grasp another successful case.

Case 3. December 14, 1877. Martha G., æt. 3 years. Diagnosis, membranous croup. In symptoms and other respects similar to Case No. 2. I treated this child with the usual remedies, including lime vapor, etc. On the 16th, at the last moment, I obtained consent of parents to operate, assisted by Dr. R. G. Stretch. The patient did well until the night of the 18th. The room was narrow and long, with a stove in the middle, and a window at one end. I placed the patient farthest from the window, but, on her own responsibility, during the night, the mother moved the crib next to the window, opened it so her child could get more air. On the 19th I called my friend Dr. Stretch to see the case with me. She died of pneumonia.

Case 4. February 23, 1878. Henry W., æt. 4 years 3 months, had had croupy cough, sharp and abrupt in character, with a crowing and whistling inspiration. The treatment, turpeth mineral in three-grain doses every three hours until emesis was produced; but I was alarmed at the great prostration it produced; resorted to alum, expectorant mixtures, principally ipecac, steam inhalations, and yet inspiration became more labored and was attended with violent efforts. The strength of the child being sufficient, notwithstanding the emetics (but paroxysms of dyspnœa were distressing, the child standing upright and raising the arms in the air to increase the action of the respiratory muscles). When in the last struggles, I operated, inserting a double canula. All went well until the ninth day. I had removed the canula each day after the fifth day of insertion until I was satisfied it was safe to permanently close the opening on the eighth day. On the ninth day, thinking the child well enough not to require careful nursing, the family allowed him to take a severe cold, and he died of congestion of the lungs.

Case 5. Elwood D., æt. 5½ years, temperature 106°, which was

reduced, and as he was in spasms when I first saw him, I waited developments which proved to be variola. I put him in front room, third floor, with his father as nurse. A severe laryngitis set in on the seventh day of eruption, expectorants, emetics, hot fomentation to throat, lime vapor and the usual remedies, chlorate potassa and iron, failed to give relief until suffocation set in sufficient to make his case hopeless. Unable to get a neighboring physician to assist me, I operated with the assistance of the father. I administered chloroform and by lamp-light successfully inserted a double canula. On the seventh day I removed it and closed the wound. The boy made a good recovery, and, with the exception of some chronic conjunctivitis, is well.

Case 6. December 15, 1882, Johnny C.; was called second day of the disease, and symptoms were very severe; increased rapidly, without relief by medical treatment. I sent for Dr. Ivison, who gave chloroform, and I operated. This child made a good recovery from croup, and died subsequently from another disease—heart disease, I believe, as I was not present; but tracheotomy was a success. The child ate heartily, slept well, played, was dressed, and regarded by myself and all as well; had been discharged a week from treatment, when he suddenly and almost instantly died; but as a post-mortem was refused, I never knew the cause.

Case 7. January 17, 1883. Alfred P., æt. 3 years 9 months, presented same symptoms as Case 1, and on the third day was considered hopeless, unless tracheotomy could save him. The surroundings were not inviting; the only room available was a large one, with a door opening into the street; this was nailed up, and admission gained from the rear of the house. I operated on this child, and although I nearly lost him several times, by the cannula closing with loose fragments of pseudo-membrane, by careful nursing and close personal attention, I was successful in this case. I used a mixture of one drachm of acid phosphoric dilutum to six drachms of glycerine, as a solvent of the membrane which formed below the opening. This mixture was more successful as a solvent than any I had ever used. I am indebted to Dr. Pepper for the suggestion of its use in diphtheria.

I now read Dr. J. F. Stone's account of

Case 8. Mabel S., æt. 3 years. A beautiful healthy child with a previous good history. After complaining of throat trouble for two or three days, was seen by Dr. J. F. Stone, and on examination no exudation, but swollen, red tonsils. May 3, slight fever and huskiness of voice. On the evening of that day an increase in croupy symptoms, and considerable dyspnœa at intervals; rapid pulse, high temperature. On the morning of the 4th, a remission of unpleasant symptoms, only to recur more decidedly in the evening. The 5th, gave the same, but more severe, and so rapidly did the evidences of suffocation increase, that it became evident that a fatal result might ensue, unless relief could be had.

Dr. Crandall, who had seen the case on the previous day in consultation, was again summoned, and concurred in the decision that the only hope for prolonging life lay in the immediate performance of tracheotomy, which he did. The immediate results were truly gratifying to all, and were followed by care and watchfulness unsurpassed, which resulted in recovery.

I will state that when I was first sent for, I advised to try medical remedies further, and postpone tracheotomy, thinking that Dr. Stone could cure the case by that means. After twenty-four hours of close application, the patient grew alarmingly worse, and we administered chloroform and operated. This case resisted the closing of the wound. On the fifth day and thereafter, each effort to close the opening was accompanied by dyspnœa and gradual granulation seemed to be the best method. I will ask Dr. Stone to detail the peculiar features of this case.

In my treatment of croup, and after-treatment of tracheotomy, I have concluded it is not best to canopy a bed, or place a child in a small room. The temperature is too suddenly changed, the air is quickly vitiated, the child needing all the oxygen it can get, is deprived of it. I observed in Case 1, when I ordered a piece of unslaked lime to be put in a pan on the stove, the father did it in true Irish style, by putting a bucket of lime in a tin wash-boiler. The effect on the patient was salutary, thinning the discharge from the canula. I used local lime-water spray, with a Codman & Shurtliff steam atomizer at intervals of half an hour. Leaving out of the question laryngotomy and laryngo-tracheotomy, I simply did tracheotomy, cutting as low as the third ring. The inferior thyroid vein must be pushed aside. There is no necessity to do much cutting after the skin and fascia are divided. The thyroid gland was removed in part in two of my successful cases.

DISCUSSION ON CROUP.

Reported by G. B. Massey, M.D.

Dr. J. Solis Cohen, in opening the discussion said: The principal impression gained from this paper is the importance of tracheotomy. As regards the identity of these diseases, while I contend that there is a difference, I am not prepared to recognize so great a difference as is claimed by the reader of the paper. Croup and diphtheria do not occur in the alleged proportionate frequency. True membranous croup is a very rare disease, and that is the reason so many doubt its existence. The series of successful tracheotomies reported by Dr. Crandall is very remarkable, and I trust that in future his success may continue to be as great. It is certainly greater than any that has yet been reported in this or any other city in the United States. Some years ago (1873) I prepared a paper for this Society, in which the results of more than five thousand cases were given. The proportion of successful operations was about one in four. Before that paper was read, operations had been rare in Philadelphia; since then

they have become more frequent. The ratio of success is not always maintained in one's later experience. Thus the late Dr. Hodge, who at one time reported four cases, three of which recovered, told me that he had subsequently operated seven times in succession without a recovery. Dr. Jacobi, whose success had been exceptionally good at one time, informed me some years afterwards that he had been so unfortunate as to lose one hundred cases in succession, and thus his early confidence in tracheotomy has been modified.

The reason for this variation in results is, I think, plain. We are careful of our first cases; we see them frequently after operation, just as the writer of the paper has done. When we have become older, this time is not at our disposal. The after-nursing I regard as of the very highest importance, and I have long made it a rule never to operate unless sure that this will be thoroughly attended to. The time for operation is a question of great moment. The best rule is to operate as soon as the thought of its necessity comes into your mind. Success depends on early operation, other things being equal. The tube appears to me to be a necessity. To dispense with it I regard as dangerous, notwithstanding it is thought by some to produce irritation, and thus favor the deposit of a new membrane. A few years ago impressed with the encomiums of Dr. Martin, of Boston, I adopted the plan of keeping the edges apart by a ligature without a tube, but inattention to nursing allowed the opening to become so frequently occluded by the soft parts, from the motions of the child, and suffocation, fortunately overcome at the moment, having ensued on one occasion, I have felt no desire to repeat the experiment.

Steam in the room, and the maintenance of an equable temperature are important. If I had but two things to depend on in croup, I would choose vapors from slaking lime. A small piece in a pan of water on the stove will not answer. Copious disengagement of vapors are needed, just such as were produced by the ignorant Irishman mentioned by the writer. I have no notion that the action of the lime is chemical, although I am not unaware of its slow action on membrane in a test-tube. I believe it acts mechanically. Small particles of lime are carried up with the vapor of water; these get under the false membrane which does not everywhere hug the tissues closely, and act as minute wedges; the accompanying vapor detaches the products.

I believe that I have seen more lives saved by the use of lime in this manner than by tracheotomy. Dr. Crandall has been fortunate in braving the contingencies that surround some of these cases. There are very few men brave enough to operate without adequate assistance, and with the uncertain light furnished by a lamp. Anomalous blood-vessels often give unexpected trouble.

As regards the point of incision, my own plan has been to perform the low operation—that is the one below the isthmus of the thyroid gland. A

larger tube can be inserted there, and the wound it further from the seat of disease. It is true that this is the more difficult operation, but there is no occasion for a hurry unless immediate death is threatening. The ten or fifteen additional minutes required for a deliberate operation, steal nothing from the patient's chance of life. In an emergency of course there is no choice; all the tissues may have to be incised in one cut. Another fact rendering the lower operation more favorable, is the lessened liability of coming upon masses of pseudo-membrane, which may be forced down the trachea in the very act of incising it.

An important point, too, not appreciated by the majority of operators, is that this false membrane is a foreign body, and should be removed. The first thing to be done after the trachea is opened, is not to put in the tube, but to make thorough search for the false membrane, and to remove all within reach. Then the edges of the cut should be kept asunder, and cough be excited to drive more out. If this were done more frequently, the statistics of recovery from the operation would be much more favorable.

We sometimes have hemorrhage to deal with. The best method to treat this is to plug the wound about the tube with absorbent cotton. Never hunt for the vessels; pressure gives the best results. The character of the tube is important; these are often made of hard rubber, but I do not consider such material desirable. It is thicker than silver, thereby lessening the calibre, and does not tarnish when the wound goes wrong; and this latter characteristic of silver tubes is frequently of service. The tube should be of equal calibre throughout, so that the patient may get all the air he is supposed to get.

In answer to an inquiry from Dr. H.R. Wharton as to his use of chloroform, Dr. Cohen replied that the operation was made easier by anæsthetics, but the safest plan is not to use them. Ether is out of the question, if ordinary artificial light be close. The patients were usually numb and insensitive from carbonic acid poisoning, and when retaining sensibility often seem to understand the purpose of the operation, and do not struggle. Struggling should be prevented by wrapping the trunk and limbs in a sheet or towel.

Dr. H.R. Wharton: I agree with Dr. Cohen that the results of Dr. Crandall's operations have been remarkably successful. The results of my own cases have been fairly encouraging.

As to the two diseases under consideration, I believe in their non-identity. With Dr. Cohen, I am opposed to the use of anæsthetics in the operation of tracheotomy, and I believe I have seen two cases lost through its use. The after-treatment of cases of tracheotomy when performed for croup or diphtheritic croup is most important, and I consider a moist atmosphere very important in these cases. At the Children's Hospital in this city we have a room especially fitted up for tracheotomy cases, which can

readily be filled with the vapor of steam from steam-heating pipes. The permanent removal of the tracheotomy-tube has in my experience often been a greater difficulty than its original introduction. I recently had a case in which the tube was removed on the thirteenth day; the condition of the patient was good, the temperature and pulse being normal. An attack of dyspnœa supervened two hours after the removal of the tube, the gentleman left in attendance was unable to re-introduce it, and when I arrived the child was dead. I have performed tracheotomy five times for diphtheritic croup, with two recoveries. One of the fatal cases was the one just alluded to, which died on the thirteenth day after the operation from an accidental cause.

Dr. J.M. Barton: I regret that Dr. Cohen has not given a more definite rule when to operate than "when you begin to think of tracheotomy then is the time to do it." As soon as you make a diagnosis, and perhaps before you make a diagnosis of membranous croup, you think of tracheotomy. I was lately called in two case by recent graduates to perform tracheotomy in croup. Doctors, parents and friends were all urgent for immediate operation; they were all evidently under the impression that without operation certain death, with operation instant recovery, would result. The cases were not urgent; they both had croup, but there was no important obstruction to respiration. Under careful treatment, which had been neglected, they both recovered without tracheotomy. My own rule has been, when the tissues just above and just below the sternum decidedly recede during inspiration, when the face becomes slightly livid and the respiration hurried, with the usual symptoms of croup, the time to operate has arrived.

I have not found ligatures of much use in keeping the wound in the trachea open. In operating low down in a young child, with a small and deep trachea, the ligatures pull directly toward the surface. A probe bent into a circle with a hook fashioned on each extremity, will keep the wound open by its spring, until a properly fitting tube can be obtained.

Is it desirable to operate *in extremis?* I have operated on several such cases, in which artificial respiration had restored them, but they all perished in from one to three days.

Dr. Nancrede: I have been much interested in the excellent paper read by Dr. Crandall, but dissent from the evident impression intended to be conveyed by the writer, that tracheotomy is a trivial operation, and one which may be undertaken without hesitation. I am not ashamed to rank myself with those surgeons who dislike such operations, especially when so bold a one as Bilroth says he blames no surgeon for declining to perform laryngotomy on a young child. This may seem exaggerated language, but although in the majority of cases the operation is a simple one, yet it may demand all the surgical skill and nerve that the surgeon is possessed of, as in the last tracheotomy I performed. Two cases have been

related this evening, in which death occurred during the operation by most competent operators. Bilroth has had a similar experience, and I know of a number of others.

An otherwise good, general practitioner, with a previous hospital experience, sent for me on one occasion saying that he had opened the trachea, but could not introduce a tube. Upon examination I discovered that he had sliced off a portion of the right ala of the thyroid cartilage, but had failed to open the trachea at all. Other operators had cut either the normally or abnormally placed carotid artery, or had dissected between the trachea and the carotid artery until they had reached the vertebræ. Other accidents have also happened, which should make us pause, while we recall the fact to our mind that if we do not get through the operation successfully, we kill our patient. I cannot resist the impression which my experience has produced, that diphtheria and pseudo-membranous croup are identical diseases, modified by their locality, rapidity of progress, etc.

Diphtheria is said to be distinguishable from croup by the presence of albuminuria, but German investigators have shown that albuminuria exists in a distinct proportion of cases of so-called croup. Besides most croup cases *die* before this symptom can make its appearance. Moreover, all cases of undoubted diphtheria do not present at first, or at any time, those profound alterations of the blood, and the kidney lesions which result in albuminuria.

Finally, whether the diseases are identical or not, clinically it was generally impossible to distinguish them at the time of operation. I may refer to a series of cases in my own practice, which would have been decided by any member present as typical cases of true croup, which yet by their subsequent course—even diphtheritic paralysis—or their marked contagiousness, proved to be undoubtedly diphtheria. The difference in character of the false membrane in the pharynx, larynx and trachea seems to be relied upon by some of the speakers as a proof of the essential difference of the two diseases. Precisely similar conditions are found in undoubted diphtheria, and are explainable on anatomical grounds, so that the membrane of croup and the membrane found in the trachea in undoubted diphtheria are identical in appearance, etc., being in the substance of the mucous membrane *in the pharynx*, but upon its surface in the trachea. There are many other similarities, but time does not permit them to be referred to.

As to when to operate, croup cases are divisible into two croups, viz.: those in which the dyspnœa is subject to violent exacerbations, but is slight during the intermission; and those which steadily increase, each paroxysm being succeeded by a relative intermission only, the dyspnœa steadily increasing. In the first class of cases, the patient may, it is true, die in an access of dyspnœa, but there is time to try medical measures

usually. In the second class, when there is marked depression of the epigastrium and base of of the chest, and also of the episternal and supraclavicular fossæ, despite the persistent use of the admirable treatment suggested by Dr. Cohen, operate at once.

Personally, I prefer to operate without ether, although it was harder for the operator, unless the patient had become insensible from carbonic-acid poisoning.

The fenestræ generally found in the tubes I regard as ridiculous. They are generally to be found outside the trachea when the tube is in place.

There should be no hurry in doing tracheotomy. Both hurry and force are exceedingly dangerous, and kill the patient sometimes. A hurried operator may force down the membrane before the tube; the trachea, being more resistant, may be cut, while the membrane will give before the knife, if the latter has been dulled. Some form of dilation had better be used to permit the removal of loose membrane, etc.

[Subsequently, Dr. Nancrede said, in answer to Dr. Stewart: I am aware that diphtheria is a disease of asthenic character, but I deny that it always commences as such, especially in the larynx, and inquiry will often develop the fact that there has been an attack of pharyngeal diphtheria precedent to the croup.]

Dr. W. S. Stewart: I have been very much interested in hearing the discussion this evening. I remember hearing a paper read before this Society some time ago, in which the necessity of early operation in croup was urged. But the reader of that paper, when interrogated as to his success in his operation, had not had one recovery. In the paper of this evening there is a large proportion of recoveries. The contrast between the two papers reminds me of a little experience when I went with a brother physician, who had a subject, as he thought, necessitating an operation as a dernier resort for croup; when the parent of the child refused to permit the operation, as soon as the arrangements would be made; and so fickle-minded was he, that three unsuccessful attempts were made to perform tracheotomy during an interval of two days, and still the child recovered without the operation. The difficult problem to solve is, the mortality that would result from not operating and the actual lives saved by operating.

I have no hesitation in maintaining that croup and diphtheria are distinct diseases.

I confess I have not had the experience of the last speaker in seeing a case of diphtheria develop and terminate fatally in a few hours. And I could not account for such results, except in the fact of it being an insidious development, and in its asthenic nature giving no special symptoms for a certain interval of time at first, except the feeling of languor an unaccountable sensation of lassitude. Croup, on the other

hand, is a sthenic disease; is ushered in suddenly, and is always accompanied by a cough of a peculiar and characteristic sound. The membrane of croup is lighter in color than diphtheria—lies more on the surface of the fauces and trachea, and is more readily expelled by coughing; whilst the germs which enter into the formation of the diphtheritic membrane imbed themselves into the tissue, and are of dusky hue, and with greater difficulty removed, and is not accompanied by a cough.

DR. JAS. F. STONE: There is one point that I would like to emphasize, and that is, the vital importance of attending the patient carefully after the operation. I am one of those who believe in the necessity and very great advantage of this operation, and in its early performance; and yet I do not believe it should be performed, unless the physician will devote a proper proportion of his time to the after-treatment. When we consider that the operation is of a character that does not relieve the physician of his responsibility, but even makes it greater, we should be willing to devote days, and possibly weeks, to its proper performance.

DR. SAJOUS: In a case which I saw to-day operated upon by myself two weeks ago, I noticed that a peculiar odor accompanied each expiration, and upon examination found a spot of ulceration just opposite the fenestra (this being rather low down near the tracheal aperture of the instrument), upon the posterior wall of the trachea. I consider the fenestra as useless. The distance between the tube in situ and the wall of the trachea, is sufficient for the passage of air, and when the voice can be used, the tube does not offer enough interference to prevent the formation of the voice.

DR. FORMAD: As to the misconception between croup and diphtheria; some gentlemen have expressed an opinion that there are different pathological processes in the two. Pathologists never asserted that the two diseases are clinically identical, but only that the pathological process is identical. If the product is different, it depends on the locality affected. We may have a urethritis or a cystitis; the diseases are different, and the symptoms different, but the pathological process is identical. It is nowhere said, in text-books of pathological anatomy, that croup and diphtheria are clinically, or even anatomically, the same.

In diphtheritic angina, the deposit is deeply seated, because the inflammatory exudate cannot get outside on account of the anatomical construction of the mucous membrane of the pharynx. In the larynx and trachea the exudate cannot stay below, it being expelled by the elastic tissue of the mucous membrane, which, moreover, has but one layer of an easily permeable epithelium. The exudate is bound to get out as soon as formed. We may have similar exudates in any surface of the body; in each case the deposits differing with the local conditions. Virchow has well expressed these differences: Diphtheria is "Eine Einlagerung," croup is "Eine Auflagerung" of the exudate.

In croup, the absence of constitutional symptoms is easily explained. While in diphtheritic angina the deposit is imbedded into tissues rich in lymphatics and blood-vessels, and death ensues usually from absorption of septic materials; in croup, the deposit lies on the outside of the body; death may ensue from stenosis of the larynx or trachea, but not from absorption of septic materials, as there are but few blood-vessels and lymphatics in this situation. The anatomical difference fully justifies a clinical differentiation. The deposit of the exudate is like a nail which may lie on the table, or may be driven into the wood. The nail is the same in each case, but is under different conditions and has different effects.

Dr. Crandall, in closing the discussion, said; Dr. Cohen has referred to Dr. Jacobi's low percentage of cures latterly. Dr. Jacobi doubtless operated as scientifically and skilfully in his later as in former cases. So also does Dr. Levis. Yet he reports many failures. I do not lay claim to great scientific accuracy, but wish to demonstrate the importance of after-treatment. The children averaged from three to four years of age, and this made it easier of performance in the cases given. I saw one of these cases every two hours, the other every four or five hours, and believe success due to this. I also believe that physicians should be able to perform this operation whenever called upon. I am under many obligations to those who have assisted me, this evening, in establishing the differential characters of these diseases.

DOUBLE INGUINAL HERNIA IN A MALE INFANT 38 DAYS OLD—STRANGULATION ON THE LEFT SIDE—HERNIOTOMY.

A Paper read before the Philadelphia County Medical Society, November 19, 1884.

By L. W. Steinbach, M.D.,
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The subject of my remarks, a male infant, was born on September 2d, of the present year, at the beginning of the ninth month of utero-gestation. During six weeks preceding labor the mother was confined to her bed or room on account of hemorrhages, due to partial placenta previa. The infant was feeble and bore evidence of premature birth by its general debility, rather than by any specific sign of incomplete development. I estimated its weight at about five pounds. Within two days the child became jaundiced, but his condition otherwise, as well as that of the mother, was sufficiently favorable for me to cease paying regular visits after the tenth day.

On the morning of October 11, the father called and requested me to see the child, because it had been unusually restless during the night, and because the mother had noticed a swelling in the groin the previous evening.

Thinking that this swelling, as described to me by the father, might be a rupture, I visited the child without delay, and on rapid inspection found a deeply jaundiced little patient, not markedly increased in size since birth, with a tumor in each inguinal region, so that the pubic region resembled a mons veneris, with the adipose tissue well developed. As this, however, was not likely to be the case in so poorly nourished an infant, I continued my examination by manual palpation, and felt on each side a firm swelling, which reached up to the respective external inguinal ring, and extended obliquely downwards and inwards into the scrotum to the extent of more than two inches. The tumors were hard, and only slightly elastic, but in neither one could I locate the testicle or separate it from the rest of the tumor.

It will appear that the diagnosis must have been easily arrived at, because there are but few pathological conditions likely to be found in an infant that would resemble this, other than hernia, or perhaps hydrocele. Yet, fearing to exert pressure upon such tender structures in order to satisfactorily outline the testicles, I entertained some doubt whether I was really dealing with a case of double inguinal hernia, for which there existed the speculative causes of congenital debility, a patulous canal, and above these an impediment to the easy evacuation of the bladder in the existence of phymosis.

I informed the parents that I believed the child to be suffering with a double hernia, and that I would make an attempt to reduce it.

The amount of manipulation which I considered to be safe, not having lessened the size of either tumor, and there being no urgent symptoms, I left, with the promise to return towards evening of the same day, with instructions to the mother to note carefully whether the child urinated, or had a fecal evacuation. At my evening visit I learned that the child had had no passage since the preceding day, that it passed but a small amount of urine, and was disinclined to nurse. I now renewed my attempts at reduction, and succeeded in returning the protrusion on the right side into the abdominal cavity, the testicle remaining in the scrotum. Only at this juncture did I become positive of my diagnosis. My exertions to reduce the tumor on the left side proved unavailing. In order to ascertain whether I could induce an evacuation of the bowels without endangering the child's condition, I inserted a small cone of soap into the rectum; this met with prompt response from that organ, and together with the soap a small amount of inspissated mucus, intermixed with, or rather discolored by, fecal matter, was expelled. This convinced me that a constriction existed somewhere in the intestinal tract. Placing a small compress over the right external inguinal ring, and securing it by a bandage, in order, if possible, to prevent a recurrence of hernia on that side, by straining in the act of micturition, I left my patient.

In the morning, and again towards evening of the following day,

attempts made at taxis were unsuccessful. Constipation, scanty urination and refusal to take the breast continued until the third day, when I consulted with Dr. John B. Roberts, who concurred in the diagnosis of strangulated hernia.

After some manipulation which somewhat reduced the tumor in size, and seemed to relieve the symptoms, it was agreed to postpone operative procedure until more urgently required. Towards evening of the same day, the vomiting, which had existed before, became more pronounced, and the copiously-emitted substance, in its consistency, color and odor, resembled fecal matter.

About noon of October 14, and therefore the fifth day after the symptoms of hernia were first noticed, and when the child was just six weeks old, an anæsthetic (ether), was administered; and the last, but unsuccessful attempt at reduction having been made, I proceeded, with the material aid of Drs. Roberts, O'Hara, and other gentlemen, to perform herniotomy.

Making an extensive incision through the tegumentary structures and subsequently dividing two additional layers of investment to the hernia, a sac was reached which was hard to the touch and distended by fluid contents. A puncture of this sac and evacuation of its sero-sanguinolent contents by means of a hypodermic syringe caused its partial collapse, and a trial was made to return the protrusion into the abdominal cavity. This attempt proving ineffectual, the hernial sac was incised. This laid open to view a coil of small intestine of a purplish red hue, and below it the testicle and the epididymis. This last peritoneal investment was the tunica vaginalis testis, and consequently formed the true hernial sac.

Even now an obstacle to the return of the intestine presented itself at the constricted neck of the sac. The tender age of the patient and the delicate and small structures involved, necessitated the employment of the ophthalmic surgeon's canaliculus knife, in place of a Cooper's hernia bistoury, whilst a small grooved director served the purpose of a hernia director until an incision enlarged the opening to a sufficient extent to permit of the insertion of Levis' hernia director. The hernia was of the oblique variety, and after extensive enlargement of the external inguinal ring over Levis' director, the intestine was returned to abdominal cavity.

The interrupted wire suture was now employed, the first and second stitches penetrating all structures from without into the abdominal cavity, approximated the edges of the external abdominal ring. A strip of rubber tubing was inserted, to favor drainage. The loss of blood was insignificant in amount. Antiseptic precautions were observed, by using a solution of corrosive sublimate for the hands, sponges and towels, whilst the instruments were kept immersed in carbolized water. An existing phymosis, which was regarded a factor in the production of the hernia, was corrected at the time.

A few hours after the operation, the child had a normal passage; the urine which was voided contained a dark green sediment, which remained as stains on the napkin. The child took the breast readily, and appeared in no way to be disturbed by the operation. Primary union took place throughout the extent of the wound, and the drainage-tube was removed on the third day, after which the small orifice thus left also closed. No symptoms of peritonitis, or inflammation elsewhere, appeared; the pulse was better than before the herniotomy; the excretions continued regular, and everything gave promise of a favorable result except that the babe did not gain strength, and the jaundice became rather more pronounced. On the fifth day after the operation, the child died, and I have good reason to believe the cause of death lay elsewhere than in the herniæ.

Not the rarity of the affection induces me to present this case to your attention, but rather my belief in the propriety of performing the operation even in so young an infant. I am not conversant with the literature of the subject, and do not know whether a few or many cases are recorded, but my observations of this one case causes me to make the deduction that the operation should be performed unhesitatingly whenever indications for it exist; and I believe that the more rapid reparative process existing in infancy gives an even more favorable prognosis than the same operation performed on the adult.

Abstracts and Selections.

III.—DISEASES OF CHILDREN.

Night Terrors in Children. (Moizard: Res. mens. des Mal, de l' E. July 1884.)

The picture which a child suffering with this condition presents is somewhat as follows: The child, say from three to six years of age, has gone to sleep apparently in his usual health. Two or three hours later he suddenly rises up in the bed, with eyes wide open, and evidently fixed upon some terrifying object; this may be to his imagination a monster, robbers, etc. His cries are pitiful, his words incoherent, and he fails to recognize the friends who are around him. This condition may last from five minutes to half an hour, then comes a period of calm, he falls asleep again, and the next day is as well as ever, without recollection of the experience of the previous night. The condition was first described by Hesse of Altona in 1845. Bouchut considered it a congestive neurosis of the brain. West, Steiner, Deseroigilles, Simon and others have described it with varying minuteness, but Debacker was the first to make a complete study of its pathogeny. No convulsions have ever been observed as accompaniments to it. West relates the case of a child, eleven months old who was troubled with gastro-intestinal disease attributable to dentition, who was

in the habit of having seven or eight attacks in a single night. The accident usually happens several nights in succession during a period of five or six weeks, and cases are related in which it has continued during a much longer period. The phenomena of somnambulism are sometimes observed in connection with this condition. It usually occurs in nervous, impressionable children, and very often in those whose constitution is weak, or who have been brought up in defiance of the rules of hygiene. The author, following the plan of Lasegne and Debacker, divides the sufferers into two classes according as there exists or does not exist a permanent lesion of the brain. In the latter class the most frequent cause of the trouble is to be found in disturbances of digestion. This reflex disturbance of the cerebral circulation is believed to be more frequent in children than in adults, and this, notwithstanding the fact that insomnia, somnolence, vertigo, vaso-motor disturbances, hysterical and other morbid phenomena are well-known results of digestive disorders in adults. The morbid action is directed upon the vaso-motor nervous system, and the author mentions as causative elements too much, or too exciting food, too much alcoholic liquor and constipation. As to dentition, night terrors are much more frequently observed during the first than during the second dentition. Less frequent causes are intestinal worms, the irritation of certain skin diseases, and the absorption of certain drugs—belladonna, stramonium, and quinine being mentioned as examples. In the other class, in which cerebral lesions form an exciting cause, night terrors may be a preliminary indication of tubercular meningitis, cerebral sclerosis, cerebral tubercles, epilepsy, and hysteria. The prognosis is usually favorable excepting in cases in which severe cerebral lesions are present. The treatment should vary in accordance with the determining cause. Certain hygienic precautions of both physical and intellectual character should be observed in all cases. All cerebral excitement must be avoided, whether it be caused by the reading of fascinating books, or by listening to stories of a terrifying character. The subject should not be left alone in his bed-room, and when an attack comes on he should be soothed and sympathized with. Regular and heathful exercise should be insisted upon, and the diet should be light and unirritating. If dyspepsia co-exists alkaline preparations, pepsin, or the tincture of nux vomica may be given. West is in favor of suitable doses of bromide of potassium and chloral for a calmative effect upon the nervous system. Quinine is also recommended as a useful drug in many cases. If the gums are hot and swollen it will be eminently proper to relieve them by incision.—*Archives of Pediatrics.*

Salaam Convulsions. (Archivio di Patol. Inf. [from Progres Med.], May, 1884.)

Salaam convulsions, salaam tic, neuropathic salute, as the disease is va-

riously known, is usually seen in children, very rarely in adults. It consists in a convulsive attack manifesting itself in an antero-posterior movement of inclination of the head and a moderate flexion of the body, repeated from twenty to a hundred times a minute. These phenomena may collectively be taken as a symptom, the diagnostic value of which has not yet been fully established. The phenomena were first observed clinically in 1849, by Newham, and since then attention has been called to the subject by Faber, Ebert, Barnes, Demme, and others. In addition to the movements already mentioned, one sometime sees convulsive movements of the shoulders, of an arm, or a leg, and in some cases nystagmus and blepharo-spasm. Sometimes there are only partial convulsions, with oblique inclination of the head to the side which is opposite to the one on which the sterno-mastoid muscle is undergoing contraction. When both sterno-mastoids are in contraction the head is, of course, thrown forward. With some children the convulsions are unattended by other symptoms; with others loss of consciousness prevails. They (the convulsions) may be preceded by a pallid face, with staring expression, and mydriasis, or by hebetude, and general weakness of the intelectual faculties. In a case which was recorded by Steiner, a cerebral tumor was found *post mortem*, which must have given rise to the spasmodic phenomena. Whatever its possible origin may prove to be, the author thinks we have evidence sufficient to conclude that it *cannot* be an affection which is due to weakness of the peripheral nerves.—*Archives of Pediatrics.*

Prophylactic Measures in Diseases of the Respiratoay Tract in Children.—Zannis in *Archiv. f. Kinderh.*, B.V., H. 9 and 10.

The author of this paper, who is the director of a hospital for newborn children at Athens, Greece, finds that the greatest mortality among children under his charge is caused by diseases of the intestinal tract, and next on the list come those of the respiratory. He considers that the cause is twofold, the first having reference to the climate and the second to faulty hygienic conditions by which the children were surrounded when with their parents. A series of rules which he published, containing "advice to mothers," include the following:

1. During cold and damp weather children should not be taken out of doors; they should be suitably clothed and should always wear woollen shirts.

2. When in the house they should not be exposed to draughts of air.

3. The underclothes should be frequently changed

Under the author's observation the use of woollen shirts has effected a decided diminution among hospital children in diseases of the respiratory tract. He is not in favor of cold baths before the sixth year. Other vigorous hygienic measures involving a certain degree of exposure should be deferred even to a later period.—*Archives of Pediatrics.*

Editor's Table.

THE SO-CALLED OVARIAN PAIN.—In a recent number of the *Lancet and Clinic* is an instructive selection from the *London Lancet*. Under the head of "Sick Headache" Dr. Jack reports the case of a lady troubled with severe paroxysms of headache at the menstrual periods. A distinguished gynecologist in America had located the seat of trouble in the ovaries, and their removal had been decided upon, but deferred on account of the broken down state of the general system. In the meantime, while traveling in Europe, the patient came into the hands of Dr. Jack. The paroxysms of pain were uniformly and promptly relieved by a hypodermic injection of one-fourth to one-third grain morphia. In the intervals she was placed on iron, quinine, good food, and regular hours. The periods were anticipated by the use of belladonna and bromide of potash. At the period a small blister was placed over the ovary. This plan of treatment resulted in a speedy and complete cure.

Now, quite fully carrying out the same line of suggestion, we find under the head of "Notes and Comments" in a recent number of the *Medical and Surgical Reporter*, the following which we give in full:

Charcot first expressed the opinion that the pain so frequently met with in women in the region of the ovary was due to an affection of the ovary itself, especially if local tenderness accompanied the subjective pain. Since that time many authors have contended that such is by no means always the case, and Dr. L. Landau adds the weight of his testimony to theirs in an article published in No. 17 of the *Deutsche Mcd. Wochenschrift*, 1884.

Landau removed an ovarian tumor in a hysterical female. The least pressure applied to the region over the diseased organ had produced the most intense pain. But what surprised the operator was the fact that the same symptom continued without the least abatement after the removal of the ovary. Dr. Mendel also has recently reported to have met with the same kind of pain in the iliac region in hysterical men. Both authors believe the pain to be due to a central lesion, probably being a hyperæsthesia of one or more of the nerves belonging to the lumbar plexus.

During the last year a number of such cases have been reported where in women suffering from pain and local tenderness, and from hysterical seizures on pressure, the ovary of that side had been removed, but regarding the cessation of any of the foregoing symptoms, the operation had utterly been in vain. These cases teach us at least caution, for though ovariotomy is not classed to-day amongst the dangerous operations, still it is a procedure grave enough not to be resorted to without some certainty of relieving the real trouble. In some way or other the

idea seems to have taken hold in the profession that hysterical females suffering from severe subjective pains and from intense pains and seizures on pressure of an ovary can be cured by the removal of the organ on the affected side. The cases of Landau and others are, therefore, of great value, showing that in many cases the success of this operation is exceedingly doubtful. S.

MURIATE OF COCAINE.—A good deal is said just now in regard to the local anæsthetic, the muriate of cocaine; and if only a considerable portion of what is claimed for its effects proves to be true, the drug and its uses is likely to prove one of the wonderful things of the day. Thus far the journal contributions mostly have reference to the use of the agent in operations upon the eye. But little has been suggested in regard to its probable great value in obstetric, and especially gynecologic, operations. The local tissues concerned in operations for lacerations of the cervix and perineum can be easily reached with the proper solution. Is it not evident that in these cases cocaine would be completely efficient, and having the superior advantage of perfect safety.

Not long since, I was called to lance an abscess in the breast; though not a very serious operation, yet the lady was so timid and nervous that it required at least half an hour to complete the lancing. How easily I could have made the surface benumbed, that my surgery would almost have been a pleasure to the patient. Or even take the more formidable operation of ovariotomy. Many readers will remember the various suggestions for local anæsthesia in the past, especially in ovariotomy, it was at one time expected that a spray of pure sulph. ether directed to the line of incision, would afford the desired anæsthesia. Of course the effect with cocaine must be complete. A great variety of like indications will be suggested to every one.

Query.—Would not the application of cocaine to the perineal body just near the completion of labor, about the time the perineum begins to distend, add to the safety of that structure, and afford a great deal of relief to the woman. S.

Bibliography.

A Manual of the Throat and Nose. By MORELL MACKENZIE, M.D., Lond., Consulting Physician to the Hospital for Diseases of the Throat, etc. New York: Wm. Wood & Co.

This is Vol. II of Mackenzie's well known work, and is devoted to Diseases of the Œsophagus, Nose, and Naso-Pharynx. The author is so well known as an authority, and the work so long and favorably known to the profession, that it seems useless to extend this notice.

Malaria and Malarial Diseases. By GEORGE M. STERNBERG, M.D., F.R.M.S., Major and Surgeon U.S. Army, etc. New York: Wm. Wood & Co., 56 and 58 Lafayette Place. 1884.

The author apologizes somewhat that in preparing this work, at the re-

quest of the publishers, he was embarrassed by brevity of time, and other circumstances. Notwithstanding these things, Dr. Sternberg has taken much interest in his subject, and presented a very useful book. The first part treats of Malaria, its Nature, Mode of Infection; the place of the leading antidotes as Quinine, Arsenic, Iodine, etc. Part second takes up in groups the various manifestations of Malarial Diseases. This is the July number of Wood's Library of Medical Authors.

A Text Book of Pathological Anatomy and Pathogenesis. By ERNST ZIEGLER, Professor of Pathological Anatomy in the University of Tübingen. Translated and Edited for English Students by DONALD MACALISTER, M.A., M.B., Cambridge. New York: William Wood & Co. 1884.

This is Part II. of Prof. Ziegler's Text Book, Part I. having appeared some time since, and this continuation being delayed much longer than was expected. The present volume is devoted to *Special* Pathological Anatomy, and it was expected it would contain the completion of the work; there will require, however, a third volume, which will appear as soon as it can be consistently. Volume II. contains eight sections, well illustrated microscopically; and the third and concluding volume will be of the same size, and devoted to the kidneys, lungs, and the nervous system.

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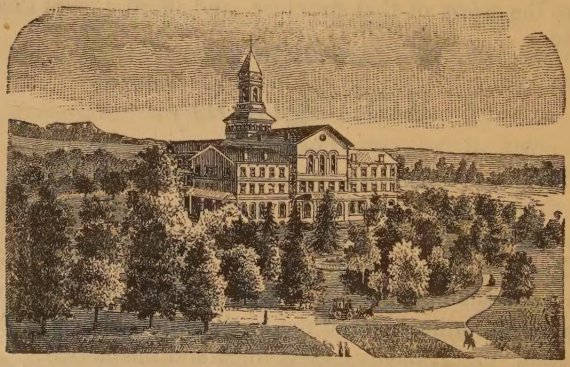

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